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HANDBOOK

TO

BATH

PREPARED ON THE OCCASION
OF THE VISIT OF

THE BRITISH ASSOCIATION, 1888.



BY VARIOUS AUTHORS.

EDITED BY

J. W. MORRIS, F.L.S.

BATH:

ISAAC PITMAN AND SONS
AND SOLD BY ALL BATH BOOKSELLERS.

Entered at Stationers' Hall.



PREFACE.

TWENTY-FOUR years have elapsed since the British Association assembled in Bath, under the Presidency of Sir Charles Lyall.

The changes which have taken place in the city, and which will attract the attention of those who now re-visit it, are more remarkable in the disclosure of Ancient remains than in the development of the modern city, though this has been considerable and continuous.

The "Handbook" which is now tendered for the acceptance of the Members of the Association, has been written with a view to presenting concisely and readily, not merely the characteristics of a residential city of exceptional attractiveness, but the continuous history of an ancient borough rich in monumental evidence of varying fortune in changing times, and illustrating in that history the revolutions of race, the changes of manners, the progress of society, in no ordinary degree.

The charms of the delightful neighbourhood, the attractions of the stately and regular domestic architecture of the Queen of the West, speak for themselves; but the historical associations need the narration of the Annalist, and the unique remains of ancient Art, of ancient luxury and civilization, the elucidation of the Antiquary. These are here supplied, not certainly with the completeness which

might be desired, but at least with the accuracy of contributors competent to speak with authority upon the subjects assigned to their care.

The restrictions of space have indeed imposed upon the several writers a limitation which has been fatal to much pleasant enlargement, a brevity of treatment most unfavourable not only to the scope of enquiry but to all that literary delightfulness which less severe conditions would have allowed; but a Handbook is all that was designed, and a Handbook is all that is secured. Prominence has been given to those features of interest which are peculiar to the city, and it will probably be observed that in a very marked measure, in the Topography as in the History, these features represent a remarkable natural development and veritable growth, determined largely by conditions long antecedent to the earliest records. The Geologist will recognize not only the rock formations from which has been hewn the uniform and workable freestone employed alike in the most ancient edifices and most modern buildings of the city, but the conformation of the hills and intersecting combes which have suggested the sites of its stately crescents and well proportioned streets. The camps which crowned the hills and the baths which occupied the valley alike tell of the acceptance of natural conditions, but the former have passed away with the times to which they belonged, while the latter have attained a perfection of adaptation to modern requirements which only the advance of modern science has rendered possible. Turn where we may, the city is eloquent of the past; turn where we may, we see the evidences of Nature's bountiful provision for the creation of a fair city, the health resort of the afflicted, the home of culture, and centre of refinement. The genius loci is everywhere in

evidence, and the reputation of the past is maintained in the progress of the present. Centralization has perhaps told more upon the accidental than the essential features of the city and the city life. The healing Springs still yield their beneficent supply, and still attract from far and near the sufferers who find in "health restored" Bath's chief attraction and best right to fame. The "resources of civilization" here wear a smiling face, and so far from being "exhausted" are extended and applied with every assiduity of enterprise -the City of the Sun is still the rendezvous of wealth and fashion, of marriageable youth, of reverend and graceful age. Undistinguished as a city by the possession of great institutions for the prosecution of Science, Bath welcomes none the less the return of the British Association to her borders, appreciative of their admirable labours, sympathizing warmly in their patient investigations, and honoured by their acceptance of the hospitality of which it is hoped the "Handbook" may be a perpetual memorial.

CORRIGENDA ET ADDENDA.

Page 34-For 1016, read 1013.

Page 61—Battle of Lansdown, add—The Parliamentarians were encamped on the south of what was then known as Stoke Wood, a quarter of a mile east of North Stoke Church, on a slightly sloping ground. This position commanded the whole valley of the Avon as far as Keynsham. The Royalists were distant (north of this) 1½ miles, on the south side of Frisen Hill, Beach Brook being in front.

Page 101-For Parliamentary, read Parliamentarian.

Page 110—For 1860, read 1862.

Page 144, line 7—After the words "known to exist," read "on the site, (though many fragments are preserved in the Museum of the Institution)."

Page-157—After second paragraph, add—The view of the Cross Bath in Dingley's History from Marble, drawn, it is believed, in 1684, is so very indifferent a sketch that it fails to give any correct idea of the Bath. In the centre is a most extraordinary and disproportionate structure called an "Umbrellon," which is said to have been erected and leaded by Mr. Coo in 1674, a year before the gallery, pump, and eistern were given by Lord Brooke.

Page 240—After concluding paragraph, add—Those who wish to ascertain more details as to the climate of Bath, so important to the increasing number of visitors and invalids who come here for rest and health, may consult the various communications made to the Bath Natural History and Antiquarian Field Club by the Rev. Leonard Blomefield. "Proceedings," vol. i., p. 43; vol. ii., p. 161; vol. iii., p. 205: vol. iv., p. 209; vol. v., p. 111; and vol. vi., p. 185.

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The Bibliography of Bath is far too extensive to be represented in the space here available. The works now mentioned are those deemed most likely to be at once serviceable and accessible.

Abbey Church of Bath, The (BRITTON) .- R. E. PEACH.

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- ,, Antiquities of-Rev. R. WARNER.
- ,, Description of-J. WOOD,
- ,, History of-Rev. R. WARNER.
- ,, Historic Guide to-Rev. G. R. WRIGHT, M.A.
- ,, Historic Houses of-R. E. PEACH.
- ,, Mineral Waters.-A. B. BRABAZON, M.D.
- ,, Municipal Records of—A. J. KING and B. H. WATTS.
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Thermal Waters.-J. K. SPENDER, M.D.

Handbook to Bath.

ETHNOLOGICAL HISTORY.

Dr. Beddoe, F.R.S.

THE ethnological history of the district surrounding Bath is not without interest. The City lies not far from the Wansdyke, an ancient earthwork which runs to the south of it, and is conspicuous near the village of Englishcombe, and which is generally believed to have been a frontier between the Celtic Belgæ and the (possibly Iberian or at least Celtiberian) Boduni or Dobuni. To the south and south-east, and along the Cotswolds to the north, is a land of dykes, camps, and primeval fortifications: much learning and keen observation have been expended* on attempts to attribute these earthworks to their right owners among the successive waves of Celtic colonization; but the subject must remain full of doubt. At a later date, the Roman occupation of Bath must have brought together a mixed population, of whom some may have been of genuine Roman or at least Italian blood. The skull of a man whose remains were lately found

^{*} By Dr. Guest, for example, and by Dr. Bryan Walker (Camb. Antiq. Soc. Rep.)

in a stone sarcophagus at North Stoke exhibits indications which may be so construed. Of earlier skulls there are in the Museum of the Philosophical Institution one or two of small size and inferior development, which Dr. Henry Bird describes as "tump skulls," and refers to the earliest race; but the attribution is uncertain.

Bath was taken, according to the Chronicle, Saxon by Ceawlin of Wessex, after his great victory Conquests. at Deorham, in A.D. 577, when he slew three kings and took three chesters, of which Bathanceaster was one (see Hallett, "Bristol and Gloucestershire Archaeological Transactions," viii., 62). It is believed that Bath lay waste for some time after its capture, and its inhabitants were probably dispersed or amalgamated with the Britons who formed the lower strata of the neighbouring population. It is doubtful whether the West Saxons crossed the Avon southwards after the battle of Deorham. Englishcombe, a village to the south-west of Bath, already mentioned as close to the Wansdyke, must at some time have been again a boundary, this time between the Welsh and the invading Saxons, but whether this was immediately after Deorham fight, or somewhat later, is not quite clear. Dr. Guest ingeniously shewed the probability that the Damnonian kingdom, for some time after that event, still included the valley of the Upper Avon, and the western borders of Wiltshire; though no one doubts that the valleys which radiate northwards and westwards from Salisbury, including Wilton, the mother settlement of Wiltshire, had been occupied by the West Saxons at a very early date. Certainly the race frontier hereabout, though often strongly marked, is very winding and irregular.

Malmesbury (Maildulfs-bury? Moelmydsbury?)* was an

^{*} Founded by Maildulf, Meildulf, or Meldun, an Irish Monk.

old Celtic ecclesiastical foundation. There Celtic Element. may seem to have been something, so late as the days of Athelstan, which marked off the freemen of Malmesbury from their neighbours; else why the unique gift of land which rewarded their valour at Brunanburgh? Chippenham was probably the centre of a strong Saxon colony; and its capture by the Danes brought about the temporary ruin of the West Saxon kingdom. Calne seems to have longer remained Celtic. In these cases the physical aspect of the population still gives some confirmation to these conjectures. Further south, the vale of the Wiley has a very blond Teutoniform population, and further still the observations of General Pitt Rivers concur with my own, in shewing that the physical type changes as one passes from the tributary valleys of the Southern Avon towards those of the Stour.

Central Dorsetshire was politically Saxon, we may suppose, in A.D. 636, when Cynegils was baptized at Dorchester. It was from this side, according to Mr. Kerslake, if I understand him rightly, that the conquest of central Somerset was effected: in any case, it can hardly have been later in date than 658, when Kenwalh fought the Britons at Peonna, and pursued them to the Parret. The invaders settled pretty thickly in many parts of eastern and central Somerset; but less so, "I think, in Mendip, and within the old forest of Selwood, and towards Wincanton.

Norman The Norman conquest did not apparently affect the ethnological constitution of the three counties with which we have to do, so much as it did that of some other parts of England. Wiltshire is especially remarkable for the extent to which the Saxon owners retained their estates under the new regime.

At a much later period there was a considerable immigra-

tion from the Continent into some of the towns of this district, where the manufacture of "West of England" cloths has since been carried on. The immigrants were partly Flemings, partly Walloons, partly natives of different parts of France. The evidence of surnames proves that there has been, during the last few centuries, a very considerable immigration of Welshmen from beyond the Severn, especially into Gloucestershire. That of Scotchmen and Irishmen has been comparatively small, except into Bristol: and even there the Irish element is smaller than might have been expected from the constant intercourse with the Irish seaports. The varying proportions of the race-elements Proportion of Race-elements. of population are hereabouts indicated much more clearly by complexion and colour of hair, and by facial features, than by stature or by the principal dimensions of the head. Thus, the people of the Cotswolds and of Eastern Wiltshire are generally fairer in complexion and smoother in feature than those of Selwood and Mendip. In Wiltshire I find 35 per cent. of adults to have dark brown or black hair, in Gloucestershire 42, in Bath 36, in Somerset 51, the proportion increasing as we proceed westwards. The average stature, according to the Report of the Anthropometric Committee, is in Wiltshire 66:34 inches (without shoes), in Gloucestershire 66.31, in Somerset 66.30; the figures being thus almost identical. The material for these schedules was mostly of my own collection. I am inclined to think that the average in Upper Wiltshire would be greater. The ratio of headbreadth to length is in Wiltshire very low, only 76.8 in the living subject; in Gloucestershire it is 77.6; in East Somerset 77.7; in Bristol, where the population has of course been chiefly recruited from Gloucestershire and Somerset, it is 77.65, being exactly the mean of the two.

BRITISH AND ROMAN ANTIQUITIES OF BATH.

REV. PREBENDARY SCARTH, M.A.

BATH was known to the Ancients under the title of UDATA THERMA, Aquæ Calidæ, according to the Geography of Ptolemy, who wrote about A.D. 120. It was then known as one of the principal cities of the Belgic Tribe which inhabited the South and West of Britain.

In the 14th Iter of Antoninus it is called Aquæ Solis.

In consequence of several altars having been found in Bath, dedicated to the Goddess Sul or Sul-Minerva, it has been conjectured that the name was "Aquæ Sulis." It may have been so, but no direct proof of this has yet been obtained, although of late the idea has become current among some whose opinions are entitled to respect.

In the Ravenna list, it is simply called Aquis.

Solinus, who wrote, as some suppose, as early as the year A.D. 80, but most probably at a later date, mentions the "Calidi Fontes," "ad usus Mortalium," and further describes them as "opiparo exculti apparatu," which shews that baths and bathing-rooms had then been built and adorned; he also speaks of Minerva as the presiding divinity, which quite accords with the inscriptions found on Roman altars dug up in Bath. He tells us also of the "perpetui ignes" kept burning in her temple, and states that they were fed with a peculiar fuel, which seems, from his description, to have been coal, then no doubt a great rarity, but which is known to have cropped out at the surface of the ground not far from Bath.

The city most probably owed its early celebrity and enrichment to its Thermal Springs, and it is not at all improbable that these springs were first utilized by the Romans, in the reign of Claudius, when the south and west of Britain were brought under Roman rule (circa A.D. 49).

The extent of the Roman baths in Aquæ Solis has only lately been ascertained with any correctness, and is not yet complete, as much remains to be explored; but what has been brought to light indicates massive structure, excellent masonry, a noble plan and arrangements, and indications of elegant ornamentation. The pipes were made and conduits and baths covered with lead drawn from the abundant mines spoken of by Solinus, "largam Variamque Copiam, quibus Britanniæ Solum undique generum pollet venis locupletibus." The lead was no doubt drawn from the Mendip mines, to which further reference will be made. The construction of the baths and their plan, is of the best age of Roman workmanship. They are probably not later than the time of Agricola, and may have been the work of the preceding governor, Frontinus, whose work "de Aquiductibus" still exists, and who had done so much in Rome for the water supply of the city.

From an early date improvements were doubtless carried out in these baths until the final close of the Roman rule over Britain. For further particulars reference must be made to the description by Major Davis.

The circuit of the Roman city extended about a mile in compass, enclosing the hot springs and a considerable habitable area.

The Mediæval walls followed the course of the Roman, and are ascertained to have been built upon the Roman foundations. The site of the Roman Forum may be laid down with tolerable certainty. Thus the Abbey Church marks the eastern limit, and the Pump Room Hotel the western. The Baths formed the southern side, covering the whole space between the present Pump Room and the Abbey, and the opposite, or northern side, reached from the Abbey nearly to the Pump Room Hotel, leaving the space now occupied by the Abbey churchyard open, but much wider than at present. When the Pump Room Hotel was built, the remains of a temple, the platform on which it stood, and of the colonnade that surrounded it, could be made out.*

The site of the present Abbey Church is believed to be that of a Roman temple, or other public building.

In other parts of the town, and within the enclosure of the Roman walls, many tesselated pavements have been found, and can still be inspected. They are left in situ, one under the Mineral-Water-Hospital and the court and garden adjoining it, another under the Blue-coat-school, and a third under the wing added to the United or Casualty-Hospital 24 years ago. Adjoining this latter, Roman baths, apparently belonging to a private residence, were also discovered.

Ancient Camps, Earthworks, and Roads, adjacent to Bath.

In the neighbourhood of the city, many traces of ancient camps remain. The earliest, or pre-Roman, are to be found (1) on the isolated hill above Bath-Easton, called *Salisbury* or *Solsbury*. There are traces of an earthen rampart surrounding the hill, and there ancient interments have been

^{*} See p. 18.

found, and flint flakes, used for weapons or other primitive purposes.

The isolated position of this hill must have always rendered it a point of importance. Water is abundant on its sides.

(2) The camp overlooking North Stoke, on the western extremity of Lansdown, under which an interment in a stone coffin has lately been found.

This camp is cut off by a ditch and mound, which separate it from the down. There is a mound in the centre, and a road passes through the middle of the earthwork. At a short distance from this, eastward, are the remains of a rectangular earthwork, apparently of Roman construction.

Further to the East, along the down, are the remains of a quadrilateral earthwork, apparently Roman, through which the turnpike road passes. The two last-mentioned earthworks were probably summer camps for Roman soldiers. At Langridge, many remains of Roman occupation have been found, and stone coffins, in one of which was discovered, about 25 years ago, a weapon of mediæval times, the coffin having been used for a second interment.

(3) On the opposite side of the valley, on Hampton Down, are the remains of a Belgic settlement, the divisions of which and the road passing into it have been traced.* The forest country around Bath, and bordering on the course of the River Avon and its tributary streams, must have harboured many of the original inhabitants, who were held in subjection by the Romans, and were no doubt largely employed by them. (See Elton's "Origins of English History, pp. 106, 223; and Green's "Making of England.")

Wansdike. The earthwork of early date, called the Wans-DIKE—probably constructed by the Belgæ, as

^{*} See Index, "Camps."

the limit of their territory, which has been traced westward to Maesknoll, and eastward to Savernake Forest—forms the northern boundary of their settlement on Hampton Down. On the side of the hill an ancient interment was discovered, and some long barrows, but the quarrying on the hill, and other disturbances of the ground, have obliterated many of the primæval marks. Before the down was brought under cultivation, and in the direction of Prior Park, could also be seen traces of a Roman camp. The same is stated to have been the case above Bloomfield (formerly Cottage) Crescent, (see Phelps' "Somerset," vol. i, p. 171, and "Aquæ Solis," p. 130,) but the quarrying has effaced nearly every vestige of this work, which still bears the name of Brerewick Camp.

Looking to the East from the summit of Hampton Down we trace the line of Wansdike into Wiltshire. After leaving Hampton Down it runs into the valley and crosses the Avon about midway between Bathford and Warleigh, on the property of Mr. Skrine, where it can be clearly seen. From thence it ascends the hill to Farley Down, but the traces are effaced by quarrying. On the summit of the down it is found adapted to the purpose of a Roman road made upon it, and it is thus clearly shown that the dike is much earlier than the road. (See Hoare's "Ancient Wilts, Rom. Æra," and Rev. A. C. Smith's "Brit. and Rom. Antiq. of Wilts," p. 52, and following, with plan and drawings, and Som. Arch., and N. H. Proc., vol. vii, p. 9.) The road is clearly traceable past the grounds at Neston Park, until it comesupon the open down, not far from Marlbro', where it separates from the dike, and the dike can be seen in its full proportions traversing the Wiltshire Downs. South-West of Bath the course of the Wansdike may be traced behind Prior Park, but the traces are indistinct until it passes through

Newton Park, where they are very plain; thence it continues to English Combe and Stantonbury Camp.

(4) This camp is distant about four miles from Bath, and occupies an elevated and insulated hill, commanding a fine view over the adjacent country. The Wansdike runs along the northern side, and from thence can be traced at intervals as far as Maesknoll, but from this point its course is only conjectural. It is supposed to have terminated either at the Avon near Clifton, or lower down at Portishead.

Stantonbury Camp is divided into two portions, and incloses a wide area, wherein are remains of hut circles.

(5) MAESKNOLL is another earthwork on the line of Wansdike, and occupies the east end of Dundry Hill, from which it is severed by a deep ditch. It is defended on three sides by the nature of the ground, and follows the shape of the hill, which has been scarped to render it more difficult of access. It is defended on the south and east sides by earthworks, within which is enclosed the spring which supplied the camp with water.

Not far from Maesknoll, on the side of Bath, is the little village of Compton Dando, and here may be seen a Roman Altar built into an external buttress of the church, on the North side. The sides of the Altar have two figures, one of Apollo playing the lyre, the other apparently Hercules with his club, (see "Aquæ Solis, p. 41.) Both are much defaced and difficult to make out. The camps on the line of Wansdike give evidence of Roman occupation.

Two important roads entered the city. One called the *Foss*, coming from Seaton through Ilchester (an important city in the country of the Belgæ in Roman times,) entered the city by crossing the river at . . the point where the modern bridge now stands, and which

probably succeeded a Roman bridge. This road quitted the city by the North gate, and passing through Walcot, followed the river to Bath-Easton, whence it passed up the hill in a direct line to Cirencester, the Roman CORINIUM.

A second came from S. Wales. It crossed the Severn near Aust, approached Bath by Bitton, and entered the city at the South gate, leaving it at the North gate, and uniting with the Foss Road until it came to Bath-Easton, where it branched off, ascended Bathford Hill, and made straight for Marlbro,' the Roman Cunetio.

The lines of these roads outside the city walls, are marked by ancient Roman interments.

Military
Station. It seems doubtful if Bath was an ancient Military Station, although fortified and rendered capable of defence. Monumental stones erected to commemorate soldiers of the 2nd and the 20th legion, (the one stationed at Caerleon in S. Wales, the other at Chester,) and a monument to a soldier of the Spanish cavalry, have been discovered, but the soldiers whose names are recorded may have come to Bath for the benefit of the Thermal Springs and the recovery of health. Votive altars also remain which had been set up as thank-offerings for benefits received from the Springs.

An inscribed stone which was discovered at Combe Down, a mile from Bath, S.W., about forty years ago, records the restoration of the "Principia," or Officers-quarters by Nevius, a freedman of the Emperor, Pro Salvte imp. caes. M. Avr. Antonini pii felicis. It had been used for the purpose of covering a stone coffin of a later date, but is now in the Museum of the Literary Institution. This leads to the idea that there must have been a military force stationed in Bath, though not probably a large one. At Caerleon, we have the second legion permanently located, a colony planted

at Gloucester, and a body of cavalry at Cirencester, but no bricks or stones having a legionary stamp or that of a cohort have been found in Bath, as at the former places.

At Wellow, about four miles S. from the city, is the site of a villa, with good tesselated pavements, which, though now covered, remain in situ, and have been drawn and engraved; as also have those found on the site of a villa near Newton St. Loe. Villas have also been found at Colerne, and near Tracey Park, at Box, at Warley, and on the skirts of Lansdown. These indicate a settled condition of the country, improvement of the land, and the introduction of more civilized life.

At Wellow can also be seen a large chambered tumulus, not far from the site of the Roman villa. This has been described and drawn in the "Archæologia," and in the "Proceedings of the Somersetshire Archæological and Natural History Society," vol. viii., p. 35.

A list of Roman Villas is given in "Aquæ Solis," (p. 112 and following). The principal are at Wellow, the pavements of which were drawn and published by the Rev. J. Skinner, Rector of Camerton, 1823; at Newton St. Loe, in which was a tesselated pavement, drawn in "Aquæ Solis," p. 115; at Combe Down, (see p. 115 for drawings of the Roman Pottery and Glass found on the site, also for interments, an account of which is given in the "Proceedings of the Somersetshire Archæological and Natural History Society," vol. v., pp. 59, 60); at Warleigh, where a sculptured capital was found, now in the Museum of the Bath Literary and Scientific Institution, (see "Aquæ Solis," p. 119); also at Hazlebury Farm, see Dr. Musgrave's "Belgium Britanicum," and "Aquæ Solis," p. 120; at Farley Castle, between that place and Iford; at Colerne, Wilts., (see Archæological

Journal, vol. xiii., p. 326, and "Aquæ Solis," p. 120); and at North Wraxall (see Wilts. Archæological and Natural History Magazine, vol. vii). Many more have been found on Lansdown; at Langridge, where stone coffins have been dug up; at Box, on the London road, where pavements, a hypocaust, and a bath, were laid open; at Congrove, on Beach Farm, where stone coffins have also been found; at Hanham Green, and near Tracey Park; at North Stoke, at Burnett, and at other points too numerous to specify.

Monumental There are ten funereal monuments at present Remains. either existing, or recorded to have been found, in Bath, and two more which are commemorative, and several portions of others of which the inscriptions have been destroyed. Besides these we have an altar, dedicated to the *Genius Loci*, a fragment of a stone, apparently monumental, bearing the name of Q. Pompeiv(s) Anicetvs, (found 1879,) and a stone which commemorates the *Restoration* and *Repurgation* of a *Locus religiosus*, by C. Severius Emeritus, and is dedicated to the *Numina Augustorum*.

One stone, apparently the side stone of the ascent to a building, has sculptures on it representing *Hercules Bibax* and *Jupiter*, and another the bust of a Roman wearing a toga. One represents a standard-bearer, and another a dog carrying a deer. These are apparently parts of tombstones.

A COLOSSAL FEMALE HEAD, now in the Literary and Scientific Institution, was found in 1714, and carried to Exeter, where it remained for some years. It has since been restored to Bath. It probably stood on a pedestal, or formed part of a figure, which must have been more than eight feet high. The head-dress is covered with small curls. Dr. Musgrave considered it to be about the date of Agricola,

but it is probably later, and may be assigned to the reign of the Emperor Titus. (See "Aquæ Solis," pp. 27, 28.)

There are other fragmentary remains which we have not space to enumerate. The most interesting are those contained in the vestibule of the Royal Literary Institution, being portions of the pediment of a temple, having in the centre of a shield a human face, the hair and beard intertwined with snakes, and with a moustache. This sculpture is drawn in Lysons' great work, and in the Archæologia, and has been variously interpreted. The carving is of a good period. Here is also another smaller pediment containing a head of Diana the charioteer, or Luna, with a crescent at the back. With it were found fragments of sculptures representing the four seasons. The whole seems to have formed the front of a small chapel dedicated to the goddess.

ROMAN BRONZES, FICTILIA, TILES, COINS, &c., FOUND IN BATH.

The Bronze Head, now in the inner room of the Bath Literary and Scientific Institution, was found in 1727, in Stall-street, near the corner of Bell Tree Lane, and with it were found Roman coins. It has formed the head of a statue, but it is not agreed whether it had been erected to the Goddess Sul-Minerva, or to Apollo or other divinity.

A Bronze Medallion, with a female head on the obverse, and an inscription running round with the lettering, Pompeia. I.c.v., is placed in one of the cases. Here are also Three Penates and some bronze keys (see "Aquæ Solis," p. 85). The medallion was found on the site of the Pumproom. Many articles have been carried out of the city and exist in private collections.

The fragment of a Tabula Honestæ Missionis was

found in 1819, but has passed out of the city. Many remains have been found in the course of excavating the Roman baths; these are placed under cases in the Pumproom, and belong to the account which will be given by Major Davis of the latest discoveries.

The site of Roman Bath has yielded specimens of every kind of pottery, and coins from the date of Augustus to that of Theodosius.

The Literary Institution contains many specimens of fine Samian ware, and other kinds of Roman pottery, also good specimens of Roman bricks and flue tiles, as well as querns or hand-mills for grinding flour.

Roman Coins have been found in great abundance in and around the city. (See "Aquæ Solis," p. 121). The earliest coins preserved are one of the Emperor Augustus and a second brass of Claudius. The series continues to the fall of the Roman Empire. Many coins have been found at Combe Down on the site of a Roman villa there, and also at Camerton, which seems to have been the site of a Roman posting station, about 7 miles from Bath, on the line of the Foss road to Ilchester.

There are, in the Museum of the Literary and Scientific Institution, seventy-eight coins, belonging to the Bath Corporation, which date from the time of Claudius to that of the Emperor Gratian.

Dr. Guidott in his "Discourse of Bath" gives a list and drawings of the coins found in Bath when he wrote. He has also given drawings of the Roman antiquities then remaining in the walls of the city, which are also given in "Dingley's History from Marble," printed by the Cambridge Camden Society. These have all disappeared. Many coins were found in excavating for the site of the

new portion of the Mineral-Water-Hospital. These extend from the time of Trajan to that of Maximus. Many coins have been found on the Mendip hills, and some hoards near Bristol (see "Bristol, Past and Present," by J. F. Nicholls, F.S.A., and J. Taylor, vol. i., p. 24). A large hoard, consisting of silver or debased silver coins, of the later Roman Empire, was lately found at E. Harptree.

Pigs of Lead, and Leaden Remains-Stone Coffins.

Lead, as we have seen, has been used profusely in the Roman baths recently laid open, and the leaden conduit pipes may be seen there still. This lead was most probably brought from the Mendip mines, distant about four and twenty miles from Bath. A Roman road traverses the Mendip hills to the Port of Uphill on the Severn, and fortified camps are to be seen on the line of it at different distances. These mines were probably worked during the whole period of Roman occupation.

The pigs of lead found in these hills among the old washings and mining refuse are of early date, as early as the time of Claudius. A pig of lead, bearing his stamp was found at Wookey, near Wells. Other pigs of lead have been found at Blagdon and at Charterhouse on Mendip, one bearing the stamp of Vespasian at the date when he became Emperor.

A pig of lead bearing the Stamp Imp. Hadriani. Avg. was found near Sydney Buildings in Bathwick, in 1822, and is now in the Literary and Scientific Institution. The weight is 1 cwt. 83 lbs. For an account of these remains, see Journal of the Archaelogical Association, vol. xxxi, p. 136, and following.

Stone coffins and Roman Interments have been found in

abundance in and around Bath; some of them are recorded in "Aquæ Solis," p. 97 and following.

Population. It is impossible to arrive at any correct idea of the population of the City and neighbourhood in Roman times.

From the many Roman villas, the remains of which are found on both sides of the River Avon, and along the sides of the principal roads, there seems to have been a considerable period of quiet and prosperity, which would cause a growth of population, of which a large proportion were probably slaves.

The Roman Roads, taking Bath as the centre, have been already noticed. The great road called the "Foss," traceable from Ilchester to Lincoln, or even beyond, to the seashore at Seaton on the South coast, and to the estuary of the Humber on the East, passed through Bath. For an account of the course of this road, see "Aquæ Solis," p. 107. At Batheaston it was met by the Roman road from Silchester (Calleva), which passed through Marlbro' (Cunetio) on its way to Bath, and coincided with the Foss until it passed out of the city.

The Foss continued its course up Holloway, in the direction of Camerton, and on to Ilchester (Ischalis), while the Road called usually the "Via Julia" kept on the North side of the Avon to Bitton (Abone?) and passed on to the estuary of the Severn, with a branch to Sea Mills, S.W. of Bristol, where a station existed, and where the remains of ancient docks have been found, and an inscribed stone,—though Aust seems to have been the usual ferry in the Roman age. (See Ormrod's "Strigulensia," p. 20 and following.) The 14th Iter of Antoninus is carried along this Road, "from Isca (Caerleon) to Calleva" (Silchester).

These were the great Main Roads, but others of less importance are traceable. (See "Aquæ Solis," p. 110.)

DISCOVERIES MADE ON THE SITE OF THE OLD WHITE HART HOTEL:

The excavations for the foundations of the Pump Room Hotel were begun in September, 1867, and revealed remains of mediæval buildings, and others of the first half of the 16th century. As the work proceeded, remains of an earlier date were brought to light, and eventually there was disclosed a wall of Roman construction built upon blue clay. At the N.E. angle of the excavation a small portion of Roman road was cut through. This was formed of rough stones covered with gravel, and probably ran out of the Roman main road now represented by Stall-street. Under this were found a bronze pin, and, at a depth of about 16 ft., a rough Roman pavement, partly destroyed, formed of concrete, covered with slabs of pennant.

Next were found a Samian bowl, broken in pieces, and two large moulded Roman stones. The larger measured a Roman foot (11½ inches) in thickness, and had lewis holes.

Another Roman wall was discovered to the south. A Roman drain of an earlier date, and a terra cotta head were also found here.

Next were disclosed two walls of Roman date, the space between them indicating the width of a room, divided by a cross wall. The portion of the cornice of a building, probably a temple, which is now in the Museum of the Literary Institution, was discovered here.

A solid bed of concrete was reached at the depth of 16 ft. below the present level of the street, and measured 24 ft. 3 in. east and west by 20 ft. 3 in. north and south, with large stones laid upon it. These had formed the foundation of a

temple or other building. Through this solid bed, shafts had been sunk for cess-pits in more recent times. One of these was forced to the depth of 4 ft. through the solid bed. Later on the south wall of the same building was brought to light, but only one course of very large stones, of which the lower part had been built, remained. One stone was more than 5 ft. long, and had a sawn face. Another wall, parallel to this, seems to have run parallel to the present street.

Close to the south wall of the building, at a depth of 16 ft., a beautiful piece of embossed glass, and at 15 ft. a large fragment of window glass were exhumed, the latter perfectly iridescent. Near these, besides other pieces of glass, the bronze head of a spear, a fragment of pottery, and part of an amphora were obtained. At the level of the bed of concrete a few coins were secured: a brass of Marcus Agrippa, B.C. 27-12; another brass of Antonia, daughter of Mark Antony, and wife of Claudius, struck in the reign of Claudius, and several small coins of the Constantine family; also a coin of Antoninus Pius, on the reverse Britannia seated on a rock, A.D. 150, and one of Constantius, the son of Constantine the Great.

For "Notes on the Remains of the Roman Temple and Entrance Hall to Roman Baths found at Bath in 1790," see a Paper by Mr. J. T. Irvine, printed in the "Journal of the British Archæological Association," vol. xxix. (1873), p. 379 and following, and "Archæological Journal," vol. xxv., p. 159.

LIST OF ROMAN ALTARS AND OTHER INSCRIBED STONES-FOUND IN BATH.

One Dea Suliminerva.

One Deæ Suliminervæ et Numinibus Augustorum.

Two Dea Suli.

One Sulevis (Nymphs of the Goddess Sul).

One Tombstone to Calpurnius Receptus, Priest of the Goddess Sul. (Sul is also found on an inscribed stone, supposed to be the dedication of a building.)

Seven Inscriptions mention the Goddess Sul or Sul-Minerva.

FUNERAL MONUMENTS.

- I.—To Rusonia Avenna, a citizen of the Gallic People—Mediomatrici.
- 2.—To Ser (villius) Magnus, a Nicomedian, who had completed his term of military service in the Leg. XX. (This Stone like the other was erected by his Heir.)
- 3.—Julius Vitalis (found on the London Road). Legio XX., V.V. (Valeriana Vietrix). Fabriciensis (Smith or Armorer), native of a Belgic Tribe, buried by his "Collegium" or Company, aged XXIX., Served 9 years.
- 4. Stone erected to Vibia Secunda, aged XXX.
- 5.—Lucius Vitellius Tancinus, a Spanish citizen of Caurium, a Soldier of the Vettonensian Cavalry (heavy armed Roman Auxiliaries with the right of Koman Citizenship), aged 45 years. Served 26 years.

 Caurium was a district of Estramadura.

D. M.

 S. Petronia, aged 3 years, 3 months, 9 days. Erected by the parents, Vepomulus and Victiserina.

D.M.

7.—Mercurii Magnii Alumna, aged I year, 6 months, 12 days. Also a stone erected in consequence of a vision by the son of Novantus, for himself and family.

INSCRIPTIONS RECORDED, BUT NOW LOST.

- 8.—C. Murrius Modestus, of the tribe (Arniensis) of Forum Julii (Friuli), a soldier of Legio II., adjutrix Pia Fidelis, of the century of Julius Secundus, aged XXV. Served VIII years.
 D. M.
- 9.—Marcus Valerius Latinus, Horse Soldier of the 20th Legion, aged XXXV. Served XX. Probable a Decurio or inferior Cavalry officer, the head or chief of a "decuria."
- 10.—Decurio* Colonia Glev(um), lived LXXXVI years.
 We learn from the above inscription that Glo'ster was a Colonia.

^{*} Decurio here signifies "Magistrate," or member of a "Provincial Senate."

BATH DURING BRITISH INDEPENDENCE,

REV. PROFESSOR EARLE, M.A.

For many a petty king ere Arthur came Ruled in this isle, and ever waging war Each upon other, wasted all the land; And still from time to time the heathen host Swarm'd over seas, and harried what was left. And so there grew great tracts of wilderness, Wherein the beast was ever more and more. But man was less and less, till Arthur came. For first Aurelius lived and fought and died, And after him king Uther fought and died. But either fail'd to make the kingdom one. And after these king Arthur for a space, And thro' the puissance of his Table round. Drew all their petty princedoms under him, Their king and head, and made a realm, and reign'd. The Coming of Arthur.—TENNYSON.

From the Departure of the Roman Legions to the Desolation of Akeman,* a.d. 410-577.

The departure of the Legions must have greatly lowered the splendour and the commercial activity of Aquæ, and have

^{*} The name Akeman is distinctively the property of the Roman-British, or, to speak more domestically, of the Welsh period. It is the name which stands midway between the Roman Aquae on the one side, and the Saxon Akemanceaster on the other. I have explained it long ago as follows:—Ake is the local equivalent of the literary form Aquæ; and the second part is the British word man, place. If anyone wishes to verify the fact that man was British for place, I would say—(x) that it is at any rate Welsh for place, as may be seen in the Welsh Bible repeatedly, e.g., John xi. 30, in the place where (yn y man lle) Martha met him; x Cor. i. 2, with all that in every place (ym mhob man) call upon the Name; (2) that this Welsh man is an ancient word, and not one that has been formed or borrowed since the fifth century. Professor Rhŷs tells me that it is identical with the old Irish magen enclosure, arena, place.

made it seem to its denizens a dull and miserable place. I assume that Aquæ was the usual and colloquial name, and that the full-length designation Aquæ Solis was not employed in speech but only in formal writings, or in lapidary inscriptions. This "Aquæ" would in pronunciation have sounded like Ak-ĕ. We are not without data in this matter; in Roman times there were various places called Aquæ, and the modern forms which such names now bear afford elements of evidence concerning the pronunciation in the time of the later Roman Empire. The German name Aachen represents an Aquæ, so do the French names Aix, Ax, and Dax; the latter, the name of a town in the Pyrenees, is for De Aquis.

As I said, the withdrawal of the Roman legions must have been a great let-down for Aquæ. This place was the chief resort of seekers for health, and the chief place of relaxation from military duties; and it must naturally have been a scene of ease amusement and festivity, abounding in every sort of entertainment that was known to the Roman world and suited to the taste of military society. After centuries of such a life, when the prosperity of Aquæ must have seemed as stable as the Empire, and the Empire as firm as the solar system, suddenly, about the year 410, the list of arrivals fell off, and came to an abrupt termination. For Rome was captured by the Goth, and it was as if chaos had come again.

As may be supposed, we have few records of these times, but the few which do survive are suggestive enough to enable us to sketch the general course of events with a reasonable sense of probability. The cities in the Roman provinces had been centres of districts, for the Romans used the towns as instruments for the rural administration, both in the way of collecting revenue, and also in the dispensation of civil

justice. Aquæ was the capital of a territory of its own, and the public business of this district was administered by municipal officers, who were elected from time to time, according to the Roman method of governing the provinces.

The Romanized British manner of people these Britons were, who at the withdrawal of the Roman power remained behind as masters of this city and territory? What was their religion, their language? What were their habits, prospects, capabilities?

Perhaps it may be convenient to deal with the latter and more general question first. They were the trading, purveying, labouring classes, who in the Roman world had got separated from the military caste, and who were called by the soldiery pagani, burghers, townsfolk. These had for generations ministered to the wants of an aristocracy of warriors; and now that their habitual and ancestral superiors were gone, they were left to shape a world as they could, to discover a modus vivendi among themselves, to carry on the administration of town and country, and to provide means of defence in case of attack. In the latter respect they must have been poorly off; perhaps there is no kind of population less capable of self-defence than one that for generations has lived under the shadow of a military organization in which it has borne no part. There would have naturally remained behind a certain number of old officers and soldiers, whose time of service was past, who had formed local connections, and with these would rest the sole available knowledge of military affairs. There is no difficulty in understanding the general helplessness which appeared when the land was overrun by barbarians from the north.

As to their religion, we cannot doubt that Christianity

was more or less disseminated and accepted, though it is hard to define the degree of progress it may have made. We must remember that for nearly a hundred years past Christianity had been the recognized religion of the Empire, and that heathen temples had been demolished or turned into Christian churches by imperial edict. The temples of which we see the fragments in the Museum may perhaps owe their demolition not to Christians, whether Roman or British, but to the indiscriminate ravages of the Saxon invaders. It is quite possible that Christian assemblies may have been familiar with the interior of those buildings for some two hundred and fifty years before the fatal date of 577. On the other hand it is quite possible that the Gospel still maintained a struggling existence in the face of old superstitions, and that when the natives were delivered from the law of the Empire, the quarrels which convulsed the land had their origin in religious differences.

As to their language, there is no doubt that the language of Aquæ at this time was Latin, and that everything was in a fair way to lay the foundation of a Romanesque nation, like the French. There existed no other public language here at that time, as the language of administration, of law, of commerce. All educated people spoke and wrote Latin; indeed everyone who had any pretensions whatever. Such was the language of the city, at least in regard to the whole of the more respectable citizens.

Of the inferior grades of the population, the masses in the city, and the agricultural population (largely slaves) in the country, it is not so easy to speak with certainty. That their speech was much latinized, there can be no doubt; the only question is, how much of the original British speech

still survived. This old Keltic speech had been for three hundred and fifty years imbibing elements of Latin, and its vocabulary must have been deeply romanized. When the Saxons came, they designated them Walas, the name they gave to all Latin-speaking races with which they came in contact. The probability is that the speech of the poorer folk in town and country was Keltic impregnated with Latin, and that it was substantially the same language as that which to this day lives as the vernacular of the principality of Wales.

So long as peace lasted, the well-established mechanism of government would probably have gone on in its usual routine even after the removal of the Legions. But they were not long to enjoy that continued peace which is favourable to the stability of institutions. The absence of military control let loose the elements of domestic strife, and, if we know anything of the interval between the Roman and the Saxon dominion, it is mingled with the distant sound of internal convulsion. The untamed barbarians to the north of the Roman Wall were not blind to their opportunities. Now opened a vent for energies long pent up; they swarmed over the barrier, and trooped southward, and luxuriated in the stored abundance of a Roman province which had grown rich through centuries of peace. The Picts carried war to the extreme south, and their terror was spread even more widely than their arms. The Scots from Hibernia infested the western coasts. To these commotions may perhaps be attributed the fact that, when next we hear of Aquæ, it appears to be under the command of a king.

The Saxons. As a counterpoise against one set of barbarians the Britons hired another. They brought over the poor and hardy Saxons of the Elbe, men who had never

bowed the neck to the Roman yoke, to do battle for them against the untamed Kelts from beyond the northern wall. The date assigned to the coming of Hengist and Horsa is A.D. 449. The place of their first camp and head-quarters was the Isle of Thanet, a spot which, though it is not rich in natural attractions, has for Englishmen an imperishable interest, as the cradle of our settlement in this Island of Britain. Called in as mercenaries, they began before long to carry on the war on their own account. This fruitful country presented such a contrast to the niggard yield of their native land that they were loth to return, and preferred to invite new comrades from over sea. They came at different times, in various banded companies, and made settlements at many points of the sea-board. Only some of the more important expeditions are recorded in the Chronicles. In 477 Ella with his three sons made good their footing against the Britons on the south coast, where then was the Forest of Andred, and where now is the Weald of Sussex. In 547 Ida founded the kingdom of Northumbria.

In what light, ethnologically, did these barbarians regard the people who had invited them into their country? On this subject there is no uncertainty, for they have expressed their classification of them very distinctly in the name they assigned to them, and that name is still a living and familiar designation. They called them Walas, or else Bret-Walas, that is, the Walas of Britain. That word Walas is only the older form of Wales. To the Saxons, the population of Britain were Welsh, just as the people of Gaul were Welsh, and just as in the language of Germany the people of Italy are "Welsch," and the land of Italy is "Welschland." In calling them Welsh (Wylisc), or Walas, they simply expressed the fact that they had been part of the Roman

Empire, and were to all intents and purposes Roman. As the people of Britain were called Bret-Walas, so the people of Gaul were called Gal-Walas, and these terms signified respectively Romans of Gaul, and Romans of Britain.

Of all the barbarian settlements on our coasts, the most important for the general history of England is the one which also absorbed our city. The earliest date that has been assigned for the landing of the West Saxons under Cerdic is 495. A long time was to elapse before they reached this western country, and the steps of their progress in the interval would have formed no legitimate part of the present narrative, but for the fact that by a grotesque mistake a marked event which happened at an early stage of that interval has imbedded itself in the history of Bath. memorable siege of Mons Badonicus, where the Walas dealt a severe blow upon the Saxons, has been fixed, by the help of data in the book of Gildas, to the year 520. Dr. Guest identified Mons Badonicus with Badbury Rings, near Wimborne, and that identification is now generally accepted. Previously it had been identified with Bath, and Banner Down was the spot fixed upon for the battle-field, because it seemed to offer a sort of translation of Mons Badonicus, as well as a vague echo in similarity of sound. But it was upon Bath that the word fastened itself etymologically, as if Badonicus were equivalent to Bathonicus, which might pass for an adjective of Bathonia. It did not trouble the old antiquarians that they were elucidating a word of the sixth century by help of another word which had no existence until the tenth.

In 552 we find the West Saxons driving the Walas out of Old Sarum; and twenty-five years later, in 577, they are at our doors. For in that year was fought the decisive battle of Dyrham, in which the Saxon Kings, Cuthwine and

Ceawlin, slew three British kings, Commail and Condidan and Farinmail, and took three cities—Gloucester, Cirencester, and Akeman. Perhaps it would be assuming too much to infer that the third-named king was king of Akeman, but we may naturally conclude that this place was under the rule of a king. When the Saxons captured cities it was not to dwell in them, but to dismantle them as hostile fortresses. Akeman was long a desolate ruin.

King Arthur. These are the wars in which the legendary fame of King Arthur is rooted. In extant literature his historic and poetic celebrity dates only from the twelfth century, but when it makes its appearance it has already the amplitude of an oft-told tale, and we know not how long it may have been a favourite theme of British minstrelsy.*

BATH UNDER WEST SAXON DOMINION, A.D. 577-1066.

How the City Revived and Grew to be the Capital of the West.

The slow movement of the Saxon power, which took some three quarters of a century to advance from Southampton to Bath, indicates that our ancestors warred, not like Alexander for glory and the rage of conquest, but for homes and settle-

^{*} A curious incident connected with the progress of the Arthurian legend was the reputed discovery at Glastonbury of the burial-place of Arthur, at a time when funds were needed for rebuilding the Abbey, after the destructive fire of 1184. Speaking of this restoration, Canon Church says:—"And the timely discovery or invention about this time of the bones of Arthur and his Queen, helped to draw a large concourse of pilgrims, and brought much gain of money to the Abbey."—The Episcopate of Reginald, Bishop of Bath, 1774-1791; communicated to the Society of Antiquaries, 1887. An old story had before this time connected the name of Arthur with the Isle of Ynysvitrin; but that Arthur and Guinever were buried there, was a claim unknown to the historian William of Malmesbury, in the middle of the same century.

ments. They settled as they advanced, and advanced only as they wanted to settle. Guided mainly by the colonizing motive, they used up the country no faster than they were impelled by the needs of their own expansion. When, in 577, they got possession of Akeman, they did not settle there, but they emptied it of its inhabitants, and occupied the country round about. All their habits made them averse to city life; they loved the free and open country, and pitched their habitations where a stream, or a plain, or a wood took their fancy. The desolation of Akeman seems to have been the theme of a Saxon poet.

There is at Exeter a book still lying where it was deposited about the year 1050 by Leofric, the tenth bishop of Crediton and first bishop of Exeter. It is a volume of English poetry; it is unmistakably described in the extant catalogue of books given by him to his cathedral; and it is still in the keeping of the chapter. One of the oldest poems in this book is a fragmentary piece descriptive of a city in ruins. There is massive masonry: the place was once handsomely built and decorated and held by warriors, but now all tumbled about; works of art exposed to the sky and forming a strange contrast with the desolation around; there is a wide pool of water, hot without fire; and there are the once-frequented baths. This is no vague poetic dream, but the portrait of a definite spot. It suits the old Brito-Roman ruin of Akeman after 577; and it suits no other place that I can think of in the habitable world. The old view that it was a fortress or castle seems misplaced in time, as well as incompatible with the expressions in the text.*

^{*} Years ago I discussed this little poem before the Bath Field Club; and my argument was subsequently printed in the Proceedings of that Society (1872). My identification of the ruin with Acemanceaster (Bath) was approved by Mr. Freeman in his volume on 'Rufus."

The poem begins:-

Wrætlic is thes weal stan wyrde gebræcon,

Stupendous is this wall of stone, fatally shattered!

The strongholds are bursten, the work of giants decaying, the roofs are fallen, the towers tottering, dwellings unroofed and mouldering, masonry weather-marked, dismantled the battlements, time-scarred, tempest-marred, undermined of eld.

Eorth grap hafath
waldend wyrhtan
forweorene geleorene
heard gripe hrusan
oth hund cnea
wer theoda gewitan.
Oft thes wag gebad
ræg har and read fah
rice æfter othrum
ofstonden under stormum

Earth's grasp holdeth
the mighty workmen
worn away lorn away
in the hard grip of the grave
till a hundred ages
of men-folk do pass.
Oft this wall witnessed
(weed-grown and lichen-spotted,)
one great man after another
taking shelter out of storms.

How did the swift sledge-hammer flash and furiously come down upon the rings when the sturdy artizan was rivetting the wall with clamps so wondrously together. Bright were the buildings, the bath-houses many, high-towered the pinnacles, frequent the war-clang, many the mead-halls, of merriment full, till all was overturned by Fate the violent. The walls crumbled widely; dismal days came on; death swept off the valiant men; the arsenals became ruinous foundations; decay sapped the burgh. Pitifully crouched armies to earth. Therefore these halls are a dreary ruin, and these pictured gables; the rafter-framed roof sheddeth its tiles; the pavement is crushed with the ruin, it is broken up in heaps; where erewhile many a baron—

glædmod and goldbeorht gleoma gefrætwed wlone and wingal wig hyrstum scan; seah on sinc on sylfor on searo gimmas; on ead, on æht, on eorcan stan: on this beorhtan burg bradan rices. Stan hofu stodan: stream hate wearp widan wylme, weal eal befeng beorhtan bosme; thær tha bathu wæron. hat on hrethre; thæt wes hythelic!

joyous and gold-bright gaudily jewelled haughty and wine-hot shone in his harness: looked on treasure, on silver, on gems of device; on wealth, on stores, on precious stones : on this bright borough of broad dominion. There stood courts of stone! The stream hotly rushed with eddy wide, (wall all enclosed) with bosom bright, (There the baths were!) hot by nature! That was a boon indeed!

Revival. At what time population began to gather on this site after the desolation, is open to doubt; but there is no doubt as to the instrumentality by which this renovation was effected. Bath was restored by that great agency of new life, the foundation of a religious house. Next to the hot springs, which first drew life about the place, and which through all our history must be understood as the primary element of its being, the second cause, and the great formative agency, is the institution of conventual life.

What is the date of this religious foundation? There are two ways of answering this question, and it makes a considerable difference which of the two we accept. We have a document setting forth that Osric, King of the Hwiccas, founded a religious establishment here in 676, but William of Malmesbury, in the twelfth century, knew of no earlier founder than King Offa, who flourished a century later. The King who ruled over the small kingdom of the Hwiccas,

represented now by the counties of Worcester and Gloucester, may have made a small beginning without any considerable effect. I think we shall be more in the true path of history if we follow the historian and allow two centuries for the silent interval of the desolations of Bath.

Not that the place was, or could be, utterly wiped out of knowledge;—such a thing was impossible for a spot which possessed healing waters. We cannot suppose that the use of these waters can ever have been absolutely suspended, for the English learnt their virtues from the "Welsh" around them, and spoke of them in a new phrase of their own "at tham hātum bathum" at the hot baths; and it was from this colloquial phrase that the place got its new name, The Hot Baths, and at length, Bath. And it was from "bathum," otherwise "bathon," the dative plural in the Saxon phrase, that the medieval Latin name, "Bathonia," derived its authority.

But while the city within the walls was ruinated and deserted, we must still suppose a lingering remnant of population not far off, who would be the cultivators of the nearest fields, and who would also supply the guides and attendants for the visitors to the waters, the succession of which could not entirely cease. Such a lingering population would be of the remnant of the "Walas," whom the Saxons had driven out of Akeman, and the hamlet of these poor people would in English have been naturally called Wala cotu, the cots of the Walas; and this reconstruction seems to be countenanced by the suburban "Walcot" in the very situation rerequired, close outside the Roman city. At Pevensey, this arrangement has become fixed; the Roman city is still desolate, with a modern town contiguous. This view is favoured by the extent of the parish of Walcot, and by the dedications

of the two parishes of St. Michael Outwich, and St. Swithun.

One of the effects of the Danish ravages of the ninth century was to establish the value of boroughs. During this century, although Bath does not figure actively in history, yet the mention of a Reeve is enough to show that it had reached a certain pitch of consideration. The Reeve of Bath was a man of the same name as the King, Alfred. This officer, who was ordinarily set to guard the fiscal interests, may very well at this juncture represent a fostering care on the part of a King who made it a policy to strengthen his

The growing importance of Bath is further illustrated by the possession of a Mint. From the time of Athelstan (925-941) there is extant a fairly continuous series of coins struck in Bath, down to the Norman Conquest. The obverse of a Saxon coin bore the King's head and name; the reverse had the place of coining and the moneyer's name. Thus on one coin we read ÆLFRIC ON BATHAN, i.e., Ælfric at Bath.

Eadgar's Of the importance which Bath had attained in the 10th and 11th centuries we have substantial evidence. In 973, at Whitsuntide, the coronation of King Eadgar was celebrated in Bath, "anciently called Akemanceaster," with extraordinary pomp. The exact meaning of this ceremonial in relation to the personal career of the King is a matter of uncertainty; but its significance as regards Bath is plain enough. We may without rashness assume that the selection of Bath as the scene of this high festival stamps our city as being at that time the representative city of the West. Early in the next century another signal event contributes its testimony to the same effect.

But, before we reach the much-apprehended tale of 1000-

boroughs.

years, and pass out of three digits into four, we must notice an innovation which is of great mark for the history of the English constitution, and which incidentally affords a statistical measure of the relative magnitude of Bath. It was in the last decade of the tenth century that the first attempt was made at a general taxation of the whole country. A sum of money was wanted to buy off the Danish invaders. tax was called "geld;" in after times "Danegeld." In order to levy a tax it was necessary to make an assessment, and we know from William's great rate-book how the rateable property of Bath was assessed. There had never before been a general levy of money, and the operation which bore the nearest resemblance to it was the old system upon which material of war had been levied in kind. The contributions of the country in men, arms, ships, had always been measured by the hidation; so many hides, so much as their contingent. When towns grew in importance and came to be assessed, they were assessed by "hides;" not hides of arable land, but imaginary hides of taxable capacity. The assessment was expressed in terms of hides. Mr. Round, in "Domesday Studies," finds "Bridport and Malmesbury assessed at 5 hides each; Dorchester, Wareham, and Hertford at 10 hides; Worcester at 15; Bath and Shaftesbury at 20." Here we may · note a measure of distance more significant than chronology; for as then the agrarian constitution gave model to the borough, so now in our day we see the borough serving as the model for the country; and the nation that began by eschewing and demolishing cities is at length constituting itself as one continuous city.

Swegen at Bath. In 1016, Swegen, the Danish King, conquered England. He selected Bath as the place at which the Thanes of the West were summoned to meet him

and make their submission to him, and in this incident we see Bath filling the same representative position which it had filled under Eadgar in 973. In both these signal instances Bath seems to be recognized as the western capital, making a third with Winchester and Westminster, and holding the position which the Norman kings afterwards assigned to Gloucester.

Thus we see as we draw towards the close of the period that Bath had risen to be a place of celebrity. It had grown continuously from the foundation of the Abbey, and in connection therewith. The hot springs were a singular gift of nature which could not lie neglected, which must after eclipse re-assemble human life around it, and in course of time heal the greatest catastrophe. When to this attraction was added the convenience of unlimited building stone ready cut to hand, and the manifold natural amenities of the neighbourhood, it is no marvel that while some ruined cities continued in decay till soil and greensward covered their outlines, ours was one of those that returned to life after extinction. The event is memorable, and so is also the manner in which it was accomplished; not for any singularity about it, but precisely because it was ordinary, and because it holds up to us a typical movement of that age in its aspirations after progress.

Bath had now arrived at maturity, the maturity of a borough of that time. The Abbey of Bath was a flourishing institution; beneficent, educational, and conspicuously ornamental. It was imposing in every aspect;—by its buildings, by the members of its brotherhood, by its social figure and political importance. The Abbey church, the predecessor of that long Norman church of which we still see some of the pierbases, was greatly admired (*mira fabrica*); doubtless a tall Romanesque structure whose image we may revive for our

selves by using for a pattern the small Saxon church of Aldhelm, at Bradford-on-Avon. Of the religious reputation of this society we shall catch a glimpse presently. Of its literature and library some few valuable specimens exist, especially one volume at Cambridge, which tells of the estates of the Abbey, and of the benevolent agrarian policy of the Abbots. A chief field of benevolence at this time lay in the manumission of slaves; and the records of this ancient book combine with like records at Exeter and at Bodmin to afford us a broad glimpse of the philanthropic movement in its westward march.

The Saxon period terminates abruptly in 1066, St. Alphege. so that only a fragment of the eleventh century falls into this chapter. But this remnant of the period is illumined with the name of a Saint;—a name which like Æthelthryth of Ely, and Swithun of Winchester, stood the scrutiny of the Reformation, and still adorns the Anglican Calendar. Alphege (in pure English ÆLFHEAH) was Bishop of Winchester, and then Archbishop of Canterbury; and being captured by the heathen Danes in 1012, he died at their hands rather than get himself ransomed with the goods of his church. This true pillar of Church and State was formed in the Abbey of Bath. The historian of the next century, William of Malmesbury, in his account of the Bishops of Winchester, says:-"Æthelwold was succeeded by Ælfheah, another good man, of whom I have already said somewhat, and will now speak more fully. In boyhood he took kindly to his books; in youth he assumed the religious habit at Deerhurst, then a small monastery, but now an empty shell of the past (antiquitatis inane simulacrum). There he adopted the rule of monastic life; but aspiring higher he proceeded to Bath, where he kept to his cell in strict seclusion, and fed his mind upon heavenly studies. Many good men were attracted by him to that sacred spot."

We must not forget the story of Bladud, which Bladud. first appeared about the close of the Saxon period. It purports to be a British tradition of the discovery of the virtue of the hot springs. Bladud was the son of a king, who had to leave his home because he was leprous. He became a swineherd, and as he lay with the swine, they caught the disease. One day, as he was pasturing them in the forest, they were taken with a sudden fit of running, and he had great ado to follow them; they scampered down the hill into a morass. When at length he overtook them, they were wallowing in the mire, in which they seemed to take unusual delight, and to which they returned day after day. At length he observed that the swine were cured; he tried the same remedy with the same happy effect.

The eleventh century was a time of intellectual vigour, and one of its manifestations was in the way of historical curiosity, which appeared in two forms, the form of sober annals, and also the form of historical romance. The latter school was much fed by Welsh tradition, real or fictitious; and hence some celebrities of the borderland between history and fable, such as Arthur, and Lear, and Bladud. The Latin book of Geoffrey of Monmouth, is at the head of this literature; then it passed into French and English, becoming popular and prolific.

The eminence of the minster-city was ere long to be signalized by a perilous distinction;—it was to become for a time the bishop-stool of Somerset. The transient honour of episcopacy left not behind it any memories worthy to compensate for the perpetual loss of the Abbacy.

BATH—ITS GENERAL HISTORY FROM THE NORMAN CONQUEST TO THE NINETEENTH CENTURY.

Austin J. King.

THE ELEVENTH, TWELFTH, AND THIRTEENTH CENTURIES.

The Norman Settlement. THE practical effect of the Conquest, as regards Bath, was probably not much felt during the life of William. Gisa, the Bishop of Somerset, was by birth a Belgian, and had not therefore the strong national feeling which made some of the other Bishops so hostile to the invader. He had quarrelled bitterly with Harold, rejoiced at his discomfiture, and looked with favour upon the new order of things. Accordingly, we find that he was not only not deprived, but favoured by the Conqueror, and that additions were made by the King to the possessions of the See.

Concerning the Benedictine Monastery of Bath during the first years of the Conqueror's reign, there is some little uncertainty; but, apart from the suggestion, made on very insufficient grounds, that the uncanonical Archbishop Stigand held for a time the Abbey in commendam, there is no reason to believe in any Norman interference. At all events, in or about 1075, Ælfsig, an Englishman, was elected Abbot. Several deeds of enfranchisement of villains or serfs executed

by Ælfsig are extant; and he was a member of the "Pious League," founded by St. Wulstan. The league was primarily religious, and had for its object the strict observance of the Monastic rule; but whilst it enjoined obedience to St. John, St. Mary, St. Benedict, and to the respective Bishops, it ordered likewise loyalty to their "world lord King William and to Matilda the lady."

Bath was a royal borough: its ownership was in the King, and there was no such inducement therefore to interfere with it as there would have been had there been an English over-lord to be an object of spoil. It may be assumed, then that neither in the ecclesiastical nor civil order was there any very sudden change in Bath itself. Geoffrey, Bishop of Coutances, received, however, large grants of land in the immediate neighbourhood, and the lords of St. Lo settled at the little village hard by, which still bears their name "Newton St. Lo."

In ro87 died William the King, Gisa the Bishop, and Ælfsig the Abbot, and almost immediately a great change came over Bath. It was brought about by the quarrels of the Normans themselves. Odo, Bishop of Bayeux, and Geoffrey, Bishop of Coutances, who had respectively fought and prayed at the battle of Senlac, rose in arms against Rufus on behalf of his brother Robert. Geoffrey, sallying from Bristol, burnt and sacked Bath. The English city and the English monastery sank into ashes, and upon their site Norman buildings were to arise.

John de Villula, upon whom the restoration was to depend, was a native of Tours, and was at once chaplain and physician to William Rufus. He had amassed a great fortune by the practice of physic, and was attracted to Bath, by what he had heard of the medicinal fame of its waters.

When, therefore, the King was victorious over the rebellious Bishops, John obtained the appointment to the See of Somerset, which had been located at Wells. This was in 1088. Now, several years before, it had been decided to remove the English Sees from villages into towns, and, as a part of this system, John removed the See of Somerset from Wells to Bath.

John was not at all popular amongst the Canons of Wells, or the Monks of Bath, and, indeed, receives hard usage at the hands of the English chroniclers. They accuse him of being a quack, and of moving his See from motives of vanity. But in Bath, at all events, we must keep his memory green.

In 1000 he obtained from the King a grant of the Abbey of Bath, "ad Somersetensis episcopatus augmentationem." From this time the Bishop of the Diocese became the Abbot: to him belonged the Abbatial powers of visitation; and the Prior, who, in fact, governed the monastery, did so, in theory at all events, as the alter ego of the Bishop, to whom, as to his Abbot, he vowed obedience. The next step was to become owner of the site of the ruined city, and this was effected by another Charter of William Rufus. which unfortunately is undated. The new Bishop re-built both the Abbey and its church, and also the city. The church was, in point of size at all events, a magnificent structure, far exceeding the dimensions of the present building, and the works were so costly as to exhaust the Bishop's means. Accordingly, finding that the Monks, who detested him as a foreigner and innovator, had little sympathy with his schemes, he seized their lands, doled out to them a meagre allowance of food, and applied the surplus revenues in his building works.

In his renovation of the city he did not, of course, omit the restoration of the Baths, which he so organized and arranged as to attract large numbers of the sick.

The Bishop died suddenly in 1122, but several years before this, he had replaced the English Monks, whom he stigmatised as barbarous and ignorant, with Norman churchmen, and restored to the monastery the lands which he frankly confesses he had unjustly withheld. Freeman speaks of his repentance as being geographical, for though he made amends for his depredations at Bath, he made none at Wells.

The beauty of the Baths, as restored by de Villula, is extolled in glowing terms by the author of the *Gesta Stephani*, written in 1138. "There is," says the Chronicler, "a city distant six miles from Bristol, where, through hidden channels, are thrown up streamlets of water, warmed without human agency, and from the very bowels of the earth, into a receptacle beautifully constructed, with chambered arches. These form baths in the middle of the city, warm and wholesome, and charming to the eye. . . . Sick persons from all England resort thither to bathe in these healing waters, and the strong also, to see these wonderful burstings out of warm water and bathe in them."

The
Development
of the
Ecclesiastical
System.

During the reign of Stephen, Bath was again exposed to the alarms of war. Robert the Bishop, owed his promotion to the post of Deputy Abbot of Glastonbury, and the Bishopric of Bath, to Henry of Blois, the King's

brother. It was not unnatural, therefore, that during the dynastic struggle between Stephen and Matilda, the Bishop should side with the King. Bristol was held by the Duke of Gloucester, for the Queen, and thus a second time there

was hostility between the two cities. Geoffrey Talbot and William de Lacy planned to take Bath by surprise, and, with a storming party, lay in wait for an opportunity to scale the walls. The assailants were observed, a sortie was made from the town, and Geoffrey was captured. The Bristol men were eager for revenge, but affecting an anxiety to discuss the terms of a truce, they induced the Bishop to come outside his gates, promising him a safe conduct. The ruse was successful; the Bishop came out and, in spite of his indignant protestations, was hurried off to Bristol. His captors then sent word to Bath, that if Talbot was not released the Bishop would be hung; and that prelate added a message begging the citizens not to expose him to death. But again the Bristol men were deceitful. When they got back their leader they refused to give up their hostage.

On Stephen marching towards Bath, the Bishop was released, and reproached roundly by the King for allowing Talbot to escape.

Stephen considered that Bath might be rendered impregnable, and, when he marched against Bristol, ordered it to be placed in a thorough condition of defence; and left a garrison. The chronicler we have been following records the valiant deeds of the Bath men, and how they plundered to the very gates of Bristol. But a note in the *Annales Monastici* to the effect that the Earl of Gloucester, who was a partisan of Matilda, fortified Bath, and the recorded fact of the destruction by fire in the same year of the Abbey Church, rather lead to an inference that the city fell for a time into the hands of its enemies. The chroniclers do not agree as to the extent to which Bishop Robert dealt with the Church of his predecessor. Some say that he rebuilt it, others that he merely finished the work which John de Villula had commenced.

The removal of the see from Wells to Bath, had not been sanctioned by the Pope, but in 1154, Adrian IV. confirmed what had been done, and the rival claims of the two Episcopal cities were made the subject of a compromise, one of the terms of which was that the right of election should be exercised by the Monks and Canons jointly.

After the death of Robert, Henry II. kept the See vacant for eight years, but in 1174 allowed the election of Reginald Fitz Jocelin. This prelate, although a busy and worldly man, interested himself much in the affairs of the diocese. He repaired two Bath churches of great antiquity—S. Mary, intra muros, and S. Michael, near the Hot Bath, both of which have ceased to exist, and established the very important charity of S. John's Hospital, for the support of the aged and infirm.

In 1179 he obtained from Pope Alexander a confirmation of the Bishop's power to exercise supervision over the Monastery at Bath, and if necessary remove the Prior "for sufficient reason and after consultation with the Chapter or other religious men." If this occasioned any friction with the Monks, it was apparently of short duration, for the Bishop placed under their care the Hospital which he had founded.

In 1192 Savaric succeeded Reginald in the Bishopric, and made a bargain with Richard Cœur de Lion, that Bath, which as we have seen was granted by Rufus to John de Villula, should be surrendered to the Crown, and that the rich Abbey of Glastonbury should be added to the Episcopal possessions.

Both Savaric and his successor, Jocelyn Trotman, styled themselves Bishops of Bath and Glastonbury, and it was under this style that Jocelyn signed *Magna Charta*.

The union of Glastonbury with the Bishopric was of short duration, and was dissolved in 1218 by Bull of Pope Honorius III. Then Jocelyn took for a time the title of "Bishop of Bath," but, towards the end of his Episcopate, assumed that of "Bath and Wells."

This title was a real one down to the Reformation. The Bishop had his throne in each of his Cathedral churches, and on some elections (notably those of Roger and William, the two immediate successors of Jocelyn) the Monks and Canons both took an active and mutually aggressive part. But the episcopal dominion was necessarily more complete over the Canons of Wells, than over the Regulars of Bath. and the Bishop had more sympathy with his secular clergy; and hence, although Bath took precedence of its sister city in the title of the Bishopric of Somerset, Wells became the actual seat of the Bishop.

With regard to municipal affairs in this century The Municipal our knowledge is comparatively slight. The Saxon Chronicle records the death in 907 of "Alfred Grieve of Bath," as if he was a personage of some importance, and from the size and population of the city, as recorded in Domesday, we may be sure that there existed before the Conquest as complete a municipal system, as accorded with the spirit of the age. The development of this system was, of course, checked by the Norman invasion, but the extent to which it was actually overthrown, is matter for conjecture. A deed now extant amongst the Archives of the Corporation records that it was signed at the Hundred Court in 1218, and a period of the year named for payment of rent is "Hokeday." As this was a day of rejoicing held on the Tuesday fortnight after Easter, to commemorate the defeat of the Danes in 1002, it would only have appeared as a "survival" from early English times, and is some evidence of the continuity of the Hundred Courts. The deed of 1218 we have just mentioned refers to the "Dean of Bath," and the earliest document extant mentioning a mayor is of the date 1230, and that of one bearing the common seal of the city, 1250.

These documents do not indicate the commencement of the state of things to which they bear witness, but refer to the Hundred Court, and the Mayor, and the common seal, as institutions so well known as to be matters of course. But the Municipal Charters, granted by the Plantagenet Kings, do not appear to bear any fixed relation to the system of Local Government, in use amongst the communities to which they were granted. The two streams of liberty respectively enjoyed by way of survival, and granted by Charter, run for many centuries in parallel courses.

The first Municipal Charter granted to Bath City Charter. well illustrates this. In 1189, just as he was embarking from Dover for the Holy Land, Richard Cœur de Lion granted to Bath the same liberties of holding property, settling disputes, and trading, as were expressed in a Charter granted earlier in the same year to Winchester. It is granted to "The Merchant Guild," an institution of which our records contains no other mention.*

King John visited Bath, certainly four times, and probably more. In 1207 he sent directions to the "Bailiff of Bath" to make enquiries as to the contents of the royal cellar in the house of the Bishop, and the account rolls of the reign preserve a most minute record of his expenditure in horses, carriages, wine, hunting, and hawking—even to the loss of a few shillings at play.

^{*} Some companies of artificers and tradesmen are mentioned in the records of the sixteenth century, but they were not "incorporated."

The Bailiffs seem to have been the authorised heads of the community in John's reign; but one writ, towards its end, is directed to the goodmen ("probi homines") of the city.

John evidently took a considerable interest in the Priory. He annexed to it a cell which he had founded, and endowed at Waterford, and also granted to the monks a very large estate beyond the walls of the city, known as the Bath Forinsecum (afterwards corrupted into Bath Forum) at a fee farm rent of £20.

The city itself, which had been granted back to the Crown by Savaric, he let to the Monks "at will" under a rent of £30.

THE FOURTEENTH AND FIFTEENTH CENTURIES.

Our knowledge of the history of Bath during the four-teenth and fifteenth centuries is somewhat fragmentary. We can trace the representation of the city in Parliament back to the 26th year of the reign of Edward I. In that year the city members were Henry Bayton and Thomas de Missletre. The privilege was not much prized, for we find in the first year of Edward II. the following "return":—

WRIT: "For the election of two citizens from the city of Bath."

**The writ of our lord the King was returned by the Mayor and Bailiffs of the said city of the liberty of the Bishop of Bath, who care not to give any effect thereto."

Charters of the usual municipal character were granted to Bath by Henry III., the three Edwards, Richard II., Henry IV., and his two successors of the same name, and Edward IV., but the space at our command does not admit of any extended notice.*

The ownership of the Bath Forinsecum remained with the Prior and Monks until the Dissolution, but that of the city, after having been held for a time by Eleanor, the mother of Edward I., as part of her dower, was in 1277 granted to the Bishop. Between this date and 1447 the city was granted by the Bishop to the citizens in fee farm, but the deed is not extant.

During the reign of Edward I. there were two very interesting presentments of juries impanelled to enquire as to invasions of the King's proprietary rights within the city. The jurors' presentment contains mention of the following matters:—

- I. That the King has in the city, by title of escheat for a felony, a house which King Henry granted to master Geoffrey of Bath, before which grant of the said King, the said house used to provide one carpenter for forty days in time of war for the use of the King's army.
- 2. The withdrawal of several persons, ecclesiastic and lay, from the suit which they owed to the King's Court, and the withdrawal of the villages of Claverton and Hampton from their obligation to mow the King's meadow (Kings-mead), to the loss of the King, each year, 20s. 6d.
- That the priest, Henry de Courtney, commenced to build a handsome chamber on the city wall, and that on his death the Prior pulled it down and carried away the stone and timber into the Priory.
- 4. That Robert Cherin holds a tenement within the city, and a meadow outside, for which he was wont to keep the gate on the bridge in time of war.
- 5. That the Prior of Hinton (a Charterhouse foundation) and the

^{*} These charters are dealt with in detail in the "Municipal Records of Bath" by Messrs. King and Watts.

Prior of Keynsham (an Augustinian foundation) held fairs at Hinton and Marshfield to the detriment of the fairs of the city.

6. That the King's own houses within the Abbey gates were out of repair since the Prior was farmer of Bath, and that the cost of restoring them was estimated at ten marks beyond the cost which the King had incurred about two houses he had himself built on his own land within the Priory.

The jurors then go on to give a list of those who had carried away stones from the city walls, the Prior being the greatest delinquent.

In 1347, the citizens were called on by Edward III., to provide six fully-armed men to accompany the King from Portsmouth to France. The city could provide but four men, and with difficulty compounded for the other two, by payment of twenty marks. The acquittance says: "This is not to be drawn into a precedent."

Edward III. sent urgent remonstrances to the citizens to repair the city walls, and directed a rate to be levied on all owners of property within the city or suburbs, and, "all who constantly dwell therein or resort thither for merchandise."

During the reign of Edward IV., the citizens incurred the royal displeasure by receiving Margaret of Anjou. Edward marched against the city, but when he had approached as far as Marlborough she fled to Bristol, and afterwards to Tewkesbury, where she was taken prisoner.

The population of Bath did not show much increase. It has been calculated to have been about 890 at the taking of Domesday; and in 1379 a poll tax shows the then population to have been about 1025. But, such as they were, the inhabitants gained their living by the manufacture of wool stuffs. The industry was introduced by the monks, who incorporated a weaver's shuttle in the arms of the monastery, and the mill in the Avon, which

was part of the possessions of the Priory, was used for "fulling" cloth.*

Several fairs and a right of market were granted to the Priory and the citizens, the bridge over the Avon at the bottom of Southgate street was rebuilt on its Roman foundations, and an attempt, unfortunately unsuccessful, was made to enforce the removal of the weirs and other obstructions, which prevented the river from being navigated between the city and Bristol.

It is not necessary that we should here speak in detail of the Baths. The mineral waters were well known during the 14th and 15th centuries, and there were several establishments for the reception of the afflicted who resorted hither, and who were principally the victims of leprosy and other skin diseases. But the existence of the thermal waters wasnot a factor in the prosperity of the city.

All the contents of the monks' library were ruthlessly scattered at the time of the Dissolution. It contained a valuable copy of the works of S. Anselm, which was forwarded by the Prior to Cromwell in 1545 at Henry's special command. One book alone is known to be now extant. This is known as the Ruber Codex Bathoniæ. It is a manuscript note-book containing a variety of memoranda as to Bath affairs, commencing from the 14th century.

This interesting book was preserved in Bath until 1703, and then became the property of Viscount Weymouth. It is now preserved in the Marquis of Bath's library, at Longleat. The contents are not all of an historical nature, but include-

^{*} The idea that Bath was a manufacturing town survived the reality. In 1566 Sir Thomas White, a clothier, and some time Lord Mayor of London, settled some property upon trust to make loans, without interest, to working clothiers in thirty-three different provincial towns, Bath being one of them.

hymns, epitaphs, and instructions in phlebotomy. There is a curious account of a presentment of jurors in 13 Henry IV. as to the position of the town pillory, which had been removed, and was about to be re-established, and a transcript of the oath taken by citizens on their admission to the freedom of the city.

I schal buxom and obedyent be to the mayr of bathe and to al hys successowrys and Y schal mentayne me to no lordschyp for hynderans of eny burges of bath. Nether Y schal nozth plete wyth no burges of bathe but on the mayr curte yf hit so be that the mayr wyll do me ryght or may do me ryght. Seynt Katern day Y schal kepe holy day yerely and Seynt Katern Chapel and the brigge help to mentayne and to susteyne by my powre. All other custumys and fredumys that langit to the fore sayde fredom Y schal well and truly kepe and mentayne on my behalf. Selme God and halydome.

THE REFORMATION.

Few towns were more completely overshadowed by a monastery than was Bath by the Benedictine Priory. In the year 1377, the returns of a poll-tax show that the clergy amounted to about a third of the adult population, whilst the precincts of the priory included about one-fourth of the whole area of the city.

The Rectory of the official city church, St. Mary de Stalles, and the advowson of the other churches and of the Hospital of St. John, were vested in the Prior and Monks, and they were also the owners not only of all the land which formed the environment of the city, but also of the large transpon-

tine parishes of Lyncombe and Widcombe, and of several of the fairs which formed an important element in commercial life.

There were two sources from which water for the public conduits was obtained,—one on Beechen Cliff to the south, the other on Beacon Hill to the north. Both were the property of the priory, and the citizens utilized the water by arrangement with the monks.

The free citizens of Bath exercised a somewhat curious "right of common" (apparently a survival of the public rights over the public land of the township) over the Barton estate, part of the *Forinsecum*. The rights were so complicated as to have naturally tended towards dispute, but down to the Reformation, we find only an agreement in 1260 defining the custom as then understood, and a deed in 1347, by which the Prior agreed that the ploughing up of some enclosed ground should not prejudice the citizens. There seems, indeed, to have been a very good feeling between the priory and the city.

The one dispute of which we have record, seems to negative the supposition that there were any serious dissensions. In 1421 there was a memorable contest for precedence between the Abbey church and the city churches as to the ringing of bells. An inquisitio ad quod damnum was held at Frome, and the jurors presented that the right was with the monks, namely, that no one should ring a bell in the city before the Abbey bell had sounded in the morning, nor after the Abbey bell had rung the curfew (ignitigium) in the evening, except on Christmas Day, the Epiphany, Easter, the feasts of the dedication of the respective city churches, also the feasts of St. Catherine (a saint to whom a special cultus was paid in Bath), St. Nicholas, and All Saints.

The Bishop, though by virtue of his office Abbot of Bath, did not as a rule interfere with the government and administration of the Prior. But at the commencement of the sixteenth century he exercised his Abbatial rights in a very marked manner. The income of the monastery was then $\pounds 480$ 16s. 6d., and there were, besides the Prior, sixteen monks. The Bishop, finding the Abbey Church, his "Cathedral Church," as he terms it, out of repair, and anxious, as so many churchmen at that time were, to show his taste in perpendicular architecture, ordered the monks to reduce their expenditure to £160, and pay the surplus to him for the building work.

The Dissolution of the Priory.

Prior Bird and the monks entered with heartiness into the scheme, and at the date of the Dissolution the main fabric of the present

Abbey Church was already built, and the stores for its completion had been got together.

It is needless to relate how, before the actual blow fell, the monks were plundered by Cromwell and his assistants, how pensions were extorted, and corodies, advowsons, and next presentations were filched away. The story is the same throughout England. The Commissioners certified the income of the monastery at £617, and Holloway the Prior, a weak, time-serving man, in 1539 surrendered the estates he held in trust into the King's hands. For this he was rewarded by a pension of £80, the lease for his life of a house in Stall street, and such perquisites as he could get from those who used the Baths. The other twenty-nine monks and lay brethren received pittances varying from £9 to £4 6s. 8d., and the monastery, which had existed for nearly 1,000 years, lay deserted.

There was not even a pretence of regarding the public

interest. The beautiful church, fast approaching completion, the precinct of the priory, and the monastic estates in Lyncombe, Widcombe, and Walcot parishes were granted to a speculator, Humphrey Colles, who two days afterwards sold them to Edmund Colthurst.

For a period of fifty years there was utter desolation. The Abbey Church was used as a quarry of hewn stone; the stores which had been accumulated for its completion (including 480 tons of lead) were plundered, and the Hospital of St. John the Baptist and the city churches were allowed to fall into decay.

Abbot Feckenham. During this dreary period Abbot Feckenham, who had been imprisoned during part of the reigns of Henry VIII. and Edward VI., but

who on Mary's accession was made Abbot of Westminster, tried to do something for the poor lepers, whom the dissolution of the Priory had left without any resource. He suffered during Elizabeth's reign twenty-three years of durance, and was three times tortured. But he was sometimes allowed out of prison "on licence," and made use of his temporary liberty to found a little hospital for lepers near the Hot Bath, which he placed under the direction of the master of the Hospital of St. Mary Magdalen, at Holloway, in the suburbs of the city. This little hospital, though insignificant in itself, yet proved the commencement of the provision for the sick poor visiting Bath which culminated in the existing "Mineral Water Hospital."

Probably by an accident, the grant to Colles did not include the whole of the monastic property, and Edward VI., in 1552, made a grant of the remainder to the citizens. Trusts were declared for the maintenance of a Free Grammar School, still existing under the name of King Edward

VI. Grammar School, and the maintenance of ten poor persons. Still later it was discovered that there were yet other possessions of the church, which had been concealed; and Elizabeth, in 1585, granted these also to the citizens. The property comprised in this last grant consisted of houses belonging to the Church of St. Michael extra muros, but these were appropriated by the Corporation.

The citizens entered with real zest upon the work of plunder. In 1572 they obtained a gift from Colthurst of the dismantled Abbey Church, and then persuaded Elizabeth to make but one parish of the whole city, and give the advowson to them. The scheme was only partially successful. Two of the churches, St. Mary de Stalles and St. Mary intra muros were desecrated, and the church of St. Michael intra muros was annexed to St. John's Hospital, but the parishioners of the other city churches and the chapel in Widcombe, were successful in preventing the spoliation from absorbing them. But the central city parish ceased to be St. Mary de Stalles, and was designated the parish of SS. Peter and Paul, the Abbey having been dedicated to these saints.

The effects of the Reformation were far reaching in the civil as well as the ecclesiastical order. The citizens conceived the idea of managing the spiritual as well as the temporal affairs of the city, and, for many years, administered the Rectory of Bath. In 1584 they had presented Richard Meredith to the living; but six years afterwards he granted to the Corporation a lease during his life of the whole benefice, except the Rectory house, at a rent of £52. The citizens hired preachers from Sunday to Sunday, collected offerings, received fees for burials, in fact farmed the living.

The estates of the Hospital of St. John they appropriated,

and spent the income in donations to players, bear baiting, and other diversions. The other charities they in a similar manner mismanaged and plundered. Elizabeth, about 1573, granted a "brief" for collecting money for the completion of the church and the restoration of the fabric of St. John's Hospital, but a contemporary, Sir John Harington, records the fact that but a fraction of the money obtained was honestly applied.

But the character of the city was changing.

Trade had almost died out, and Elizabeth had brought the city into fashion, not as a health resort—that was to be a creation of later time—but as a Hydropathic establishment. Visitors flocked hither from all parts of the kingdom, and the attention which they bestowed upon the half-ruinous Abbey Church, and the example of liberality which they set, shamed the citizens into a better sense of their duty; and, before the death of Elizabeth, much progress had been made in the work of restoration.

The Queen herself visited Bath in 1574, and as she remained here over a Sunday, great efforts were made to make the churches look less neglected than was their wont. The "Quiresters" were brought over from Wells; the windows of Stalls Church were mended; and the ruined state of the Abbey Church disguised by garlands of green. The bellman was given a new coat of "black frise at xv. pence the yard," and men were employed to clear away the soil and ashes which it was the custom to throw over the town walls. Elizabeth granted a charter to the city in 1590, which codified the existing municipal customs, but she was not pleased with the condition of the town. The common sewer running open in the middle of the streets, and the state of the pitch-

ing seem from Harington's letters to have been particularly annoying to Her Majesty.

In 1602 the Queen intended to pay another visit to Bath, and it is amusing to read of the flutter the citizens were in. They sent in hot haste to Chipping Sodbury, Cirencester, Bristol, Frome, Warminster, and Chippenham to get "paviors against the Queen's cominge;" but, when her health prevented the visit, the proposed work was indefinitely postponed.

On the accession of James I., Sir Walter Raleigh and Lord Cobham were both at Bath, and there are indications that the mysterious plots, "the Main" and perhaps "the Bye," were in part concerted here.

The Gunpowder Plot.

Proclamations were sent to Bath, amongst other places, for the arrest of those implicated in the Gunpowder Plot, in which their persons and quaintly described. Lord Harington cousin. Sir John Harington, that one of the

were minutely and quaintly described. Lord Harington wrote to his cousin, Sir John Harington, that one of the traitors "hath confessed that he had many meetings at Bath about this hellish design;" and there was a good deal of commotion in the city after the discovery, as the Chamberlain's accounts bear witness.

A curious letter is extant, written by Lord Monteagle from Bath. It was addressed to the conspirator Catesby, and begs his presence in this city. The letter contains some very curious references to "the elements of air and fire," and to a great catastrophe to take place through the agency of Catesby, by which Robert Cecil ("Robin") was to be injured. The date is "September." Now if this letter could be proved to have been written in the year of the plot, it would be important evidence to implicate Monteagle. No year is mentioned on the letter, and Monteagle was so frequently at Bath, and Catesby so often

met him here, that there is no necessary or even probable inference that it was written in 1604, and unless this date can be fixed, the letter has no significance. The general contemporary opinion was that Monteagle was quite innocent, and he received not only praise but even reward from the King and Cecil for communicating to the Royal officers a warning he had personally received not to be present in Parliament on the fatal day.

We have already mentioned the right of common of the free citizens over the Barton estate. This was denied by Sir George Snigge, who had become the owner of the estate. A tedious litigation of twenty years ensued, and every legal artifice and terrorism which Sir George (himself one of the Barons of the Exchequer) could devise or execute, was unblushingly made use of to defeat the undoubted rights of the citizens. In the end, and after the death of Snigge, the matter was referred to the arbitrament of Sir Nicholas Hyde, the Recorder of the city, and afterwards Chief Justice.

Hyde made an award in 1619, and decided that the free citizens should, in lieu of their commonable rights over the whole estate, have the fee simple of that portion which, under the name of the Bath Common Estate, now forms so useful and beautiful an adjunct to the city.

Queen Anne (of Denmark) visited Bath in 1613 and 1615, and was received on each occasion with all the state the citizens could

provide. An organist, trumpeters, drummers, coachmen, waynemen, littermen, and footmen were all fêted and fed. A little fountain on the bridge, which on very great occasions of festivity was made to run wine, was put in order, and a piece of plate was presented to Her Majesty. Dr. Theodore de Mayerne, the Court physician, accompanied the Queen,

and she was attended by a very large suite of courtiers. After the second visit was over there was a difficulty in raising the funds to meet the expenses incurred, and we read in the Council minutes—

"A resolution concerning the arrearages for the collection towards the cup and other charges given to the Queen's most excellent Majesty. It is resolved that the rate, as it is sett heretofore, be collected presently, and if any person do refuse to pay the same then to be forthwith committed till he do pay it."

The Queen's visit cost the Royal exchequer £30,000 in addition to the sums levied in Bath. Yet, in a contemporary letter, we read that the counties through which the route lay petitioned "to be spared this year in respect of the hard winter and hitherto extreme hot and dry summer, whereby cattle are exceeding poor and like to perish everywhere."

It is curious to notice the survival of the mediæval idea that records should always be written in Latin. A monk from the Priory had been the prothonotary of the city, and the older council minutes, not now alas extant, contained the ordinary formulæ of civic life in the learned language. These were religiously copied in so far as they could be made to apply to more modern requirements. Thus the council minutes for very many years always commenced "Civitas Bathon. In camera concilii ibm tent tembris Anno . Coram Ricardo Jones maiore," and the officials would be dubbed "Justiciarii Ballivi, Gubernatores Balneæ, Supervisores carnis," and so forth. But the Latin of the citizens was not of a kind which could be adapted to passing events, and so, after a pompous introduction, they presently glided into the vernacular.

THE CIVIL WARS.

The early part of the reign of Charles I. was uneventful at Bath, except as regards the number of distinguished visitors.

In July, 1642, there was an amusing reference to the stoppage of the tide of wealthy invalids, occasioned by the removal of the Court to York. The "guides were necessitated to guide one another from the alehouse lest they should lose their practice; the ladies were fallen into a lethargy for want of stirring cavaliers to keep them awake, and the poor fiddlers were ready to hang themselves in their strings for a pastime for want of other employments."

The very next month the troubles began. In August, 1642, Sir Robert Foster was holding the Summer Assize at Bath, and both parties to the great national struggle felt that there was an opportunity of getting the county to declare itself.

A "commission of array" had been sent to the Lord Lieutenants of Somerset and Devon, to levy troops for the King, and this the Parliament had denounced as illegal. On the other hand, the Commons had directed the Militia to be called out.

Petitions against the "commission of array" were signed by the Constables of twenty Hundreds in Somerset, and about the same number in Devon, and presented to the Judge in open Court by the Constable of Keynsham. The petitions were in the same form, and called upon the Judge to read aloud in Court the condemnation by the Parliament, so that all might know what the law was.

The concourse of countrymen into Bath with these petitions, and the demonstrations they made against the Royal Prerogative, naturally put the Royalists on the alert.

The Marquis of Hertford the Lord Lieutenant, his brother, Francis Seymour, and Mr. William Bassett, of Claverton Manor, one of the city members, had been with the King at York, but were hurriedly despatched to the West.

Sir Robert Foster was known to be a "trimmer," and Hertford wrote him a strong letter of warning "that the gentlemen of Dorset were well affected to the King, and were apprehensive what might pass at the Assizes, and few of them would adventure themselves into the town, being at present in such a posture of war, so as he, the Judge, was not likely to be so fully attended, and all preventions would rest wholly on his courage and constancy."

The Grand Jury made a presentment of a neutral character—that it was grievous the people should be vexed by contrary orders—that the King and Parliament should meet and adjust their differences, and that in the meantime the King should suspend the "commission of array," and the Parliament the order for the Militia—very sage advice, but not suited to the temper of the times.

Such was the position when Hertford and Seymour came to Bath, and met there a goodly array of gentlemen. The Hoptons of Witham Friary, Sir John Digby, son of the Earl of Bristol, Sir Francis Hawley, and Sir Thomas Bridges of Keynsham. The Seymours, Hoptons, and Bassetts were much beloved in Bath, and for the time, carried all before them. The Corporation fêted their distinguished guests, and made them presents; and the Town Hall, decked as we read with "grene and carpets," was placed at their service. It was proposed to make Bristol the Royalist head-quarters; but the trained bands, who at heart loved not the cause, objected that they could not be legally marched out of their county. Finally Hertford made the great tactical mistake of es-

tablishing himself at Wells, an unwalled and defenceless town.

The Horners of Mells, and the Pophams, who were amongst the few Somerset gentry who sided with the Parliament, raised forces and pursued the Royalists. The trained bands deserted to them, and Hertford was driven to Somerton and Sherborne, and afterwards retreated into Wales.

Colonel Popham and Colonel Stroud, who thus gained the ascendancy of the county, occupied Bath, and were in turn made much of by the Corporation.

The command of the Parliamentary forces in the West was entrusted to a gentleman well known in Bath, Sir William Waller. His first wife, the daughter of Sir Richard Reynell, had died in the city, and he erected a handsome monument to her memory in the Abbey, and entrusted the Corporation with funds for its repair and maintenance. The citizens rejoiced that Waller made Bath his head-quarters, and not only gave him complimentary presents, but afforded assistance to him in establishing his stores of ammunition in the Guildhall. They had still to discover what a military occupation implied.

In the summer of 1643 the King's forces were divided. One army was with His Majesty at Oxford, the other, under Sir Beville Grenville, flushed with its victory at Stratton, was marching from the West. It was the object of these two armies to effect a junction. The purpose of Waller, whose forces had been reinforced by the fugitives from Stratton, was to keep them apart.

Battle of Lansdown.

After some skirmishing in the Claverton valley,* the Royalists took up their quarters at Marshfield, whilst Waller took strong ground on the opposing declivity of Lansdown, (near the

^{*} See Index, Claverton.

site now occupied by the Grenville monument), and strengthened it with earthworks. The Royalists, seeing Waller's strength, would have declined battle, but their cavalry were attacked by Sir Arthur Hazlerig's newly-raised "regiment of lobsters," and driven back in confusion. The Cornish foot, which formed the flower of the Royal army, not only stood their ground, but drove the Parliamentary infantry out of the cover they had taken. In the meantime the cavalry rallied, and routed Hazlerig's horse.

The Parliamentarians retreated to their main body, and a furious fight ensued. After four distinct charges, the Royalists drove Waller from his position, and, holding their ground, brought up the artillery. Waller retreated, and took up another position within musket shot, behind some stone walls. Both parties were too exhausted to charge, and there was an interchange of fire until night. At last a scout, sent forward by the Royalists, saw that Waller had retreated with his cannon, leaving the lighted linstocks sticking in the wall to distract attention. The Royalists took possession of the field, and captured some powder, of which they stood much in need, and some pikes and small arms, but, too much exhausted to profit by their victory, fell back upon Marshfield. Hertford pushed on towards Oxford, but was so harassed by Waller, that he threw his infantry and ordnance into Devizes, and fought his way on with the cavalry. Waller laid siege to Devizes, but was engaged at Roundaway Down by Lord Wilmot, sent by the King from Oxford. The Parliamentarians were completely routed. Waller took refuge at Bristol, and Bath was once more in the possession of the Royalists.

Sir Thomas Bridges was appointed Governor, with a garrison of 140 men.

On the 20th November, 1643, the Town Council resolved:—

"It is agreed that all the doores weh are made in the Cittie Wall to be damed vpp and taken away and the Hame gate to be also damed vpp and also a Turnepicke to be sett vpp at the Westgate or els the said gate to be walled vpp. And also sufficient Courts of Gaurdes to be made at such places as the Gouienor shall appointe. And whereas the Gouenor doe desire to be furnished wth linnen for the Board and Bed for this yeare followinge. It is agreed that if xh or vnder will satisfie him that then it shalbe given him by the Chamber."

A month later we read-

"Agreed that the Gouener shall have a guift psented to him this Christmas by the Corporacon

Agreed there shalbe given to the Gouener one hoggshead of Clarrett and 2 or 3 Suger loaves."

The citizens had a bad time. Courts of guard were established at the "Nagg's Head," in Northgate Street, at the Southgate and the Westgate, and the citizens had to provide coal and candle for the soldiers there. They had the charge of such prisoners as were brought in, and fed them on bread and cheese, and they had to tend and feed the wounded.

The East gate leading to the Avon was blocked up, so was the Ham gate leading out into the fields beyond the south wall. The Southgate itself was left to its ordinary defences, as the outworks on the Old Bridge were probably deemed a sufficient defence. As there was a considerable suburb, the parish of St. Michael, beyond the North gate, that gate was left open, and a barricade and chain were provided as a means of blocking the passage down Broad street.

The following loyal resolutions were passed by the Council:—

- "5th Feb., 1643-4.—It is agreed that the Chamber will provide Tenn Barrells of Powder at their owne Costs and Chardges for his Matter Service.
- And further that if the severall Hundres of this Division doe desire to lay in their pportion of Powder into or Magasein that the Corporacon will provide a place for it but not to insure it if it should be taken from them or come to any other mischance.
- 12th Feb.—Agreed that 50^{it} shalbe taken vpp for the buyeinge of Ten Barrells of Powder by the Cittie for the use of his Ma^{ties} Service.
- 18th March.—Rators to rate the Inhabitants of the Cittie for the Raiseinge of 150th for arreres to the Kinge as alsoe for value of the Houses of the said Cittie.
- 13th May.—Agreed that a Rate shalbe made throughout the Cittie for the gatheringe of 40s for prence Maurice.

Agreed that a house shalbe taken for the Gouerner for his quarters."

These minutes are struck through in ink, no doubt as a simple mode of rescission when the Royalists were no longer masters of the city.

In May, 1644, Queen Henrietta Maria, then near her confinement, spent a night at Bath, on her way to Exeter, and in the same month Prince Charles made Bath his residence for a time when driven by the plague from Bristol.

In July King Charles himself visited the city, on his way to join the army in Cornwall.

In June, 1645, the Royalist cause was lost at Naseby, and in the next month Prince Rupert thus wrote in cipher, from his command at Bristol, to secretary Nicholas:—

"If Fairfax speedily advance to us we shall be forced to quit Bath for want of men and victuals, but if he give us time we shall do well."

Capture of the City.

The story of the capture of the city as told by Sprigge in his "Anglia Rediviva" is amusing:— "Col. Rich in command of the cavalry summoned the town, but the surrender was refused. Towards evening our dragoons, commanded by Colonel Okey, were drawn near the bridge, and crept on their bellies over it to the gate, seized on the small ends of the enemies' musquets, which they put through the loopholes of the gate, and cried to the enemy to take quarter, which so affrighted the enemy that they ran to their work, which flankered the bridge, and left their musquets behind them as of no use to them, so as of little to us. Our men instantly fired the gate, and became masters of the Bridge, upon which the Deputy-Governor [Henry Chapman] sent for a parley, and upon the treaty the town was yielded upon articles, making the common soldiers, who were about 140, prisoners, and having conditions for the officers to march away to what garrison they pleased. We found in the town 6 pieces of ordnance, 400 arms, 12 barrels of powder-the works, besides the wall of the city, strong and tenable. It was yielded in good time, for Prince Rupert was advanced with a party of 1,500 horse and foot from Bristol within four miles to relieve the town, but coming too late, retreated."

Colonel Rich was left with two regiments in Bath.

In September Fairfax rested here with his army some four or five days, and the citizens were reduced to frightful straits to meet the requisitions.

Captain Harington, the son of John Harington, of Kelston, held a commission in the Parliamentary army, and at this juncture did much to ease the distress of the city, with which his family was intimately connected.

The citizens wrote Captain Harington and his father piteous letters. In the first the Mayor says:—

"Our houses are emptied of all useful furniture, and much broken and disfigured; our poor suffer for want of victuals, and rich we have none. Warrants are come to raise horse, but we have none left. Colonel Sandford doth promise his assistance as much as he is able. We have now 400 in the town, and many more expected. Gol protect us from pillage."

The letter to Captain Harington says that his troops behaved well, but that those citizens who had not their money ready were threatened with pillage, and goes on—

"Eighteen horses were provided at the market-house, and delivered up as you desired, but the men required were excused on your desiring, nor was any seizure made, or plunder, excepting in liquors and bedding. The town house was filled with troops that came from Marlborough in their march westward. . . . Our meal was taken by the Marlborough troop, but they restored it again to many of the poorer sort. Our beds they occupied entirely, but no greater mischief has happened as yet. . . . We have no Divine service as yet; the churches are full of the troops, furniture, and bedding. Pardon my haste, as I have sent this by a poor man who may suffer if he is found out, and I dare not send a man on purpose, on horseback, as the horse would be taken."

The Parliamentarians ruled the city with a rod of iron. The members of Parliament were displaced, and the Recorder, the Rector, some members of the Council, even the Sergeants-at-Mace, and men of the ruling faction put into authority.

The Recorder of Bath had been Sir Nicholas Hyde, afterwards Chief Justice. He gave place to the noted William Prynne, who had been educated in Edward VI.'s Grammar School in the City. Prynne, on the execution of Charles I., made it his business to proclaim Charles II., and was for this imprisoned, and Ashe of Freshford was made Recorder.

The citizens sent petitions without number to be relieved of the garrison which still occupied the city, and were at last successful, but they were then crowded with "maymed soldiers," sent down to complete their recovery in the hot baths. Bath was at this period recognised as a national sanatorium.

Of the Restoration we need say but little. There was a great rejoicing at Bath. The citizens had feasted Hertford and then Waller, Bridges and then Fairfax. They had given a cup to the Queen, and one to the King, and then rejoiced with much smoking and shouting and drinking at the defeat of the Royal cause. Now, of course, there was a grand jubilation; the city conduits ran with claret, there was a procession and a banquet, and "four hundred virgins (most in white waistcoats and green petticoats), going two and two, bore aloft in their hands crowns and garlands made in the form of crowns, bedecked with all manner of rare and choicest flowers."

Captain Harington, whom we have already mentioned, was excepted from the "Act of Indemnity and Oblivion," but he was a favourite in the county, and a certificate was signed by twenty-four of the most influential noblemen and gentlemen of Somerset, containing the following bold assertions:—

"Whatever his father's principles led him to, his son is no object of wrath for his Majesty's displeasure

"He did bear a commission from Oliver Cromwell, but at our request to protect us from ruin and plunder . the city of Bath was much protected and preserved by Mr. Harington's accepting Oliver's commission, which also had been exposed to plunder and ruin."

We need not say that the Restoration did not bring unalloyed happiness to either party. The Puritans groaned beneath the persecution they endured, and many of the old Cavaliers begrudged the influence which men who had borne arms against the King's father obtained in the councils of the son. Bath affords good specimens of each of these discontents—William Prynne and Henry Chapman.

Prynne was grandson of William Sherston, the first Mayor of Bath after Elizabeth's charter. He was born at Swainswick, Sherston's country house, and educated at the Bath "Grammar School."

Of this singular man, with his intolerance and vehemence and combative tendencies, space forbids us to speak in detail. By temperament and education a democrat, he now found himself the advocate of despotic power; by religious conviction an austere Puritan, he was the friend of the most profligate Court which ever disgraced the country.

The very opposite to Prynne was Henry Chapman. Sprung from a wealthy clothier family, he adopted the profession of arms, and held commission as a Captain of Horse during the Civil Wars. During the Royalist occupation he was deputy-governor of his native city, and sought refuge in Wales upon its capture. At the Restoration he was indignant at the favour shown to Prynne, and at the scant attention bestowed upon himself.

The Corporation were, in March, 1661, proposing to elect Prynne and Popham (both old Parliament men) as the city members. Sir Thomas Bridges, who was then being sued by the Corporation for extortion whilst governor, accused Ford, the mayor, of disloyalty, and had him summoned before the Privy Council. During his absence, Chapman, without any legal pretence, assumed the mayoralty, and got possession of the sheriff's "precept." He proposed Bridges and Berkeley as the members, but, finding himself in a minority in the Town Council (who then exercised the sole power of election), set up a claim that the freemen and not merely the Council were entitled to vote. Prynne ridiculed this approach to popular representation, and, by reference to precedents, established the vicious custom.

Then Chapman determined to become mayor. He had no sufficient backing to secure his election in the ordinary way, but being a man of resource he borrowed a troop of horse, ran off bodily with four aldermen and five councillors, and kept them in durance at Devizes until after the election of mayor. But his enormities did not stop here:-"On the Lord's day, he and other of his confederates, meeting in an alehouse during the time of evening service and sermon, from which they absented themselves," counted up the possible votes, and found he could not reckon on having a majority. On the very morning of the election, therefore, he seized a brace more councillors and laid them by the heels at Keynsham. Chapman was for the day successful, but the kidnapped councillors on their return held another election, turned Chapman out of the council, and ordered the bailiffs to arrest him. This they feared to do, and there was for the time a dead-lock. Then the outraged dignity of the citizens was pacified by inflicting a fine on the bailiffs. But as soon as the law's supremacy had thus been vindicated the fines were remitted.

All this came before the Privy Council, who upheld the Corporation but suggested that, to prove their loyalty, they had better "make a free and voluntary present for the supply of his Majesty's pressing occasions." The Corporation happened to have £100 Church money in hand, and this Prynne presented in their names to Charles, who "received it very graciously."

One of the most remarkable parts of the story is that Chapman regained the confidence of the citizens, was several times mayor, and wrote a very curious work on the thermal waters, which he entitled "Thermæ Redivivæ."

On the death of Charles, James II. was proclaimed at

Bath even before the receipt of the official tidings, and he and his Consort, Mary of Modena, several times visited the city.

James Duke of Monmouth landed at Lyme Regis on the 14th June, 1615, and thence marched to Bridport and Taunton. His further course was towards Glastonbury and Wells, at which latter town he outraged the feelings of the Canons by breaking the church furniture, trying to burn the organ, and stabling his horses in the Cathedral.

From Wells, Monmouth marched towards Bath, but the citizens strengthened their walls, called out the Militia, and replied to his summons by a defiance. Fearing to attack either Bath or Bristol, Monmouth, after a skirmish at Keynsham, went to Norton St. Phillips, and thence to Frome, where he was well received. Thence he retreated to Bridgewater, and was defeated at Sedgemoor. The citizens rang their bells on the news of this victory, and made a bonfire when, a few days afterwards, Monmouth was taken at Ringwood.

Then commenced the "Bloody Assize," the remembrance of which will never die out in the West country. Jeffreys sat at Southampton, Dorchester, Exeter, Taunton, and Wells, and heads and parboiled quarters of his victims polluted the air in every town and village and country road. Three hundred and thirty-three prisoners were condemned to death (of these 251 were actually executed), seven hundred and forty-nine were sold as slaves to speculators and sent to the West Indian Plantations, and many more were whipped from market to market. Some of the citizens were apparently implicated, for the Mayor sent witnesses from Bath to give evidence against the rebels at Wells, and received a war-

rant commanding him to erect a gallows in the most public part of the town and "provide halters to hang the traitors, with a sufficient number of faggots to burn the bowels of four traitors, and a furnace or cauldron to boil their heads and quarters, and salt to boil therewith, half a bushel to each traitor, and tar to tar them with, and a sufficient number of spears and poles to fix and place their heads and quarters."

The Mayor was present with the Tithing-men and a guard of forty soldiers to see these horrid rites. *

In April, 1687, the "Declaration of Toleration and Liberty of Conscience" was published by James, and the citizens returned their humble thanks, taking credit at the same time for defending the city against Monmouth and his abettors, "our loyal resolutions being then so resolutely fixed that we had resolved to die at the gates, rather than suffer him to get within them." The next year the Queen Consort came to Bath, and the birth of the child afterwards known as the Pretender, was attributed in part to the virtues of the Cross Bath. The Earl of Melfort inscribed on a pillar in the bath a fulsome inscription commencing:—

"In perpetuam Reginæ Mariæ memoriam quam Cœlo in Bathonienses thermas: irradiante Spiritus Domini qui fertur super aquas trium regnorum hæredis genetricem effecit."

On the birth of the child, in June, the citizens again addressed the King in glowing words of loyalty and devotion. On the 5th of the following November, William of Orange landed, and the bells of Bath rang a merry peal at the discomfiture of the Prince whom the citizens had so servilely lauded. There was a great rejoicing. A hundred young men carried naked swords, and two hundred virgins in an Amazonian costume, which must have been more noticeable than decent, bore crowns and sceptres, darts and

javelins. The procession banqueted at the Town Hall, and the night was spent in dancing.

About the same time a resolution of the Town Council was passed in these words:—

"Agreed, the Crown of Thorns on the Cross in the Cross Bath, and the Cross there, and all other superstitious things belonging thereto shall be taken down, and the letters thereon inscribed shall be obliterated."

It would seem from this that the Revolution was warmly welcomed in Bath, but in 1715, in 1718, and in 1745 there was a strong party in the city ready to invoke civil war to bring back the Stuarts, whose defeat had been the subject of such rejoicing.

THE SEVENTEENTH CENTURY.

We have already referred to some of the historical events which agitated the nation and were reflected upon Bath during this period, but, that the phenomenal character of the Renaissance of the City in the eighteenth century may be appreciated, it is necessary to point out the depth from which the rise was to take place.

As early as 1562 Dr. Turner, who was at once a physician and Dean of Wells, wrote a treatise on the Bath waters. He had, during his exile under Queen Mary, visited the continental Spas, and was shocked to see, on his return, how little the great natural advantages of Bath had been utilized. Men and women bathed together, often naked; the baths were open to the weather; and the bathers to the jibes, and sometimes the pelting, of the public who loitered in a public passage overlooking the bath. The waters were contaminated with the foulest matters—dead animals being often cast into them.

There were literally no conveniences for dressing—bathers had to undress on the narrow margin of the bath itself, or be carried in bathing clothes from their lodgings and so home. Those who drank the waters imbibed the foul-smelling liquid in which others bathed, and this though skin diseases formed a large proportion of the ailments of visitors. Boys and lads loitered naked about the baths, turning summersaults and diving for pence thrown in by the idlers congregated to watch the bathers.

Dr. Jones in 1572, Dr. Jordan in 1630, Dr. Venner in 1637, and Dr. Guidott in 1668 did, each in turn, something to spur the Corporation to a reasonable activity. Pumpers, who administered a form of *douche*, bath guides, male and female, and cloth layers were elected, who paid the Corporation for their offices, and made what they could out of the vails and perquisites from bathers, and as the century progressed an amelioration in degree, though not in kind, was effected. Visitors who could afford the luxury of decency and privacy, lodged with the medical men, who kept boarding-houses around the baths, with doors opening into them, and in some cases with private slips, enclosing and secluding a part of the bathing area.

We have mentioned the baths before the town because but for the baths the latter must have lapsed into the condition of a mere village. Leland, visiting Bath in 1530, tells us of the decline of the clothing trade which had been

the staple industry, and the Earl of Leicester and Sir John Harington mention its almost total decay before the commencement of the

seventeenth century.

But although some good houses had been built by a few of the prominent citizens during the reign of Elizabeth, the general style of the city was that of a mean manufacturing town, with narrow, uneven streets, and affording few of the decencies or comforts of life. It is not surprising, therefore, to read, in a letter written by the Mayor in 1622, that there was but one "resident sojourner." About ten days was the ordinary stay of those who came "for the cure." The population consisted almost entirely of physicians, surgeons, and apothecaries, who added the profits of boarding visitors to their professional honoraria, and the retail tradesmen, who supplied the necessaries and extravagancies of life.

The growth of any considerable outside trade was rendered impossible by the state of the roads, which were so bad as to be absolutely impracticable. Indeed, it was sometimes seriously debated in London whether such and such a royal personage could get to Bath at all. If a distinguished visitor was expected, the Corporation sent a deputation from parish to parish with notice to "mend their ways"; and when this had been done it took quite a little army of pioneers to bring along a couple of carriages. For ordinary commodities Bath was dependant upon the port of Bristol, and during the whole of this century the citizens laboured to have the Avon made navigable, for the land "carriage in most part, though not many miles, by reason of rocks and mountainous ways, cannot be had but at a great rate."

It would be natural to ask, "Why no one had the enterprise to inaugurate a change in the city itself?" The answer is to be found in the vices of the local administration.

The Close Corporation.

By the Charter of Elizabeth, which codified the existing customs, the government of the city was vested in a mayor, a college of aldermen (varying in number from four to ten), and twenty councillors. The vices inherent in the system of govern-

ment were horrible. If a vacancy occurred in the Council the remaining members elected one of the freemen to fill it. The finances were entrusted almost unreservedly to the Chamberlain. This person was a member of the Council, and always made a profit out of his office. It was one of his duties to entertain the councillors, who alone had even a nominal supervision over his accounts. The Council also annually elected two of their body to be Justices, and these administered the laws they had helped to make. But the most lucrative office was that of the Bailiffs, who discharged all the functions of the executive, and made large profits out of the administration of the prisons and markets. These also were members of the Council.

No one outside this charmed circle had any voice in the government or taxation of the town. But there was an *imperium in imperio*. The mayor and justices formed an inner Cabinet who could vote money and levy taxes, without even the sanction of the Council. Indeed, the Council minutes relate principally to the management of the houses and land belonging to the Corporation, the election of officers, and the choice of members to represent the city in Parliament.

We have mentioned the freemen, the select body who, by a perversion of right, were the representatives of the free inhabitants of the city. These men formed a ring almost as close as the Council itself. No one who was not a freeman could keep open a shop in the city, and the freedom could be obtained only by election by the Council, by purchase, or by a seven years' apprenticeship to a freeman.

A resolution passed by the Council in 1697 is instructive:

[&]quot;Whereas there hath become a custom in this City that the mayor should have power with the consent of the Corporation to make

a freeman, which hath of late become a great prejudice to the said City and the freemen thereof who have faithfully and honestly served their apprenticeship, it is ordered that no person or persons whatever shall for the future be made a freeman unless he hath served such apprenticeship, except noblemen, gentlemen, and such persons as this Court shall be well assured will not follow any art, trade, or mystery whatever."

The natural result was that the citizens had no competition to excite their activity, and were deprived of the advantage they might have derived from new blood and bolder ideas. How great was the stagnation may be inferred from two instances. At the commencement of the century there was fear of a famine if a particular baker had to attend as a witness in London. At the end of the same century there was not one goldsmith in the city.

The population was small, and almost stationary. We have estimated the inhabitants at the Conquest at 890; in 1379 the number was a little over 1,000, and at the Restoration it did not exceed 1,200.

During the whole of the seventeenth century there was a complete absence of all increase in the area of the town.

As the freemen were as close a corporation as the municipality itself, and as no ordinary residents could acquire any influence in local administration, it followed that there was no inducement for either tradesmen or the wealthier classes to make the city their home.

A graphic though coarse sketch, entitled "A step to the Bath," published in 1700, thus concludes:—

"'Tis neither town nor country, yet goes by the name of both. Five months in the year 'tis as populous as London, the other seven as desolate as a wilderness. Its chiefest inhabitants are turnspit dogs, and it looks like Lombard-street on a Saint's day. During the season it hath as many families in a house as

Edinburgh, but when the baths are useless, so are their houses. The baths I can compare to nothing but the boilers in Fleetlane or old Bedlam, for they have a reeking steam all the year. In a word, 'tis a valley of pleasure, yet a sink of iniquity, nor is there any intreague or debauch practised at London, but is mimicked here."

Another writer gives as an illustration of the dreariness of Bath out of the season:—

"A person might charge a culverin with grape-shot and fire it from the 'Bear Inn' down Stall street without killing anything but a turnspit dog or a pig."

The Renaissance of the City in the Eighteenth Century.

It has been our endeavour to depict a decaying city, small, ill-built, ill-smelling, ill-governed. We have now to describe how the old order gave place to the new, and how a town which had dwindled to a village, rose to be one of the most beautiful, as well as one of the most fashionable, resorts in the kingdom.

The great work was carried out by a Triumvirate—Beau Nash, Ralph Allen, and John Wood. Each played a prominent and distinct part, and each was willing to encourage and to aid the achievements of his plans.

In the later years of the seventeenth century the number of casual visitors to Bath had increased, but at the commencement of the eighteenth, circumstances gave its popularity a very decided impetus. In the year 1692 the Princess Anne was here, and received royal honours from the citizens. Her name was included in the Liturgy, and she was escorted to church by the Mayor and aldermen. King William III., her royal brother-in-law, objected to

these distinctions, and did not think it beneath him to direct a Secretary of State's warrant to the Mayor forbidding such attentions, on the ground that the Princess had displeased him. The officials waited upon Anne and made such excuses as they could, and these she good-naturedly accepted. In 1703 Anne came again to Bath, but this time as Oueen. There were reasons why both Queen and subjects wished to make the occasion a remarkable one. Anne wished to display her dignity and state where she had been subjected to disrespect. The citizens endeavoured, by the brilliance of their reception, to efface the memory of their former slight. Thus it happened that a vast concourse of visitors flocked to the city, and filled it full to overflowing, so that fabulous sums were paid for beds, and unfortunate invalids were turned from their lodgings to make room for visitors more remunerative. There is no such way of attracting people to a place as to convince them they cannot get into it, and the renaissance of the city dates from this royal visit

But the very number of visitors was fraught with danger. They made the city unbearable to the penitent rakes and drunkards who were nursing their gout by the hot springs. They screwed up the watchmen in their boxes, defied the beadle, and laughed at the remonstrances of the Justices. In despair, the Mayor asked Captain Webster, himself a brawling, dissolute man, to take the part of master of ceremonies. Webster's exertions must not be altogether despised: he did something to organize the amusements of the place. Availing himself of the influence of the Duke of Beaufort, he induced the Council to allow dancing in the Guildhall, and erected a sort of booth in the Orange-grove, where the company played cards. It was about the year

1704, and during Webster's reign, that Richard Nash came to Bath as a visitor. A lucky evening at cards induced him to prolong his stay, and he was well known to so many of the better class of those frequenting the place, that he began to discharge many of the social duties naturally falling upon the master of ceremonies. Webster was soon afterwards killed in a duel, and Nash was elected by acclamation as his successor. Choice could not have fallen upon a man more suitable. He had been an undergraduate, a soldier, a Templar. He knew everyone worth knowing, had good address, an excellent temper, refined tact, and had in getting up a display before Royalty in the Temple displayed talents for social administration of no mean order.

The crisis was a serious one, for Bath was under the dominion of a gang of well-dressed roughs, gamesters, and adventurers. Swords and bludgeons were flourished upon the promenades. Ladies in the streets, and even in the baths, were persecuted with offensive gibe or more offensive compliment. The evening entertainments were nightly invaded by drunken ruffians, swaggering about with swords or riding whips, lolling on settees with mud-bespattered boots, and tearing draperies and dresses with their spurs.

We do not claim for Nash that he improved the morals of the city. We doubt if the idea of attempting such a reform ever occurred to him. What he did do was successfully to insist upon decorum.

His first care was to provide an Assembly Room as a centre of fashionable life, and, in 1708, Harrison's Rooms in the Orange-grove were opened. In these rooms and the larger ones which took their place, were held the balls, which were the subject of most severe regulations. At six a series of minuets commenced, each gentleman dancing in turn

with the ladies. Country dances were not allowed before eight, tea was served at nine, and at the stroke of eleven the music stopped.

Full-dress was rigorously insisted on, and gentlemen found some consolation for being excluded, if they came in boots, in the meeting out of a similar penalty to ladies appearing in aprons.

Some duels which had lately shocked the public mind, and the sad death of Webster, gave a fair pretext for forbidding the wearing of swords, not only at the receptions but on the promenades.

Subscriptions for the balls, the town band, the promenades, and other local purposes were organised, and a tariff was settled for the bell-ringers and carol singers who celebrated the arrival of visitors.

The habit of addressing ladies whilst bathing was summarily checked by Nash taking by the heel and throwing headlong into the bath a gentleman who was leaning over the balustrade and addressing a bather. The lady turned out to be the gentleman's wife, which caused good laughter and many bad jokes.

We can say but a word where we should be glad to say much of Nash's individuality. Neither in face nor person was he distinguished, but he affected great state in his dress and equipage. His carriage was drawn by six beautiful black horses, and attended by numerous lacqueys gorgeously attired. He always wore a white hat, and it became known as a conventional emblem of his titular royalty, which no one ventured to imitate. Few men could have exercised so absolute an authority with so little power. His commands were given with such bonhomie that few cared to dispute them, and his wit could take so caustic a turn as to make

rebels ridiculous.* But he showed besides such tact in adjusting awkward situations, that he was made an almost universal referee.

Nash was no moralist, and, unlike many others no better than himself, he never pretended to be. His contemporaries, finding him to be a man of honour and of spirit, and successful in the great work which he undertook, were proud of him. Recognising in him a genial tenderness of heart, which made him ever ready to listen to a tale of woe, ever eager to relieve distress, they were blind to his faults. Do not let us, who still enjoy the advantages he secured for the city, seek to discover weaknesses which injured only himself. He held the post of Master of Ceremonies for upwards of fifty years, and after a few years of retirement, as a pensioner of the Corporation, he died in 1761 at the age of eighty-seven.

The first of our Triumvirs came to Bath as a freak of wayward fancy; the second, Ralph Allen, was sent here by his superiors. Ralph Allen was the son of an innkeeper at St. Blaize, in Cornwall, and, in 1711, he obtained, through Sir John Trevelyan, promotion from a small office in that county to a clerkship in the Bath Postoffice. At this time the country was moved to great excitement by rumours of a Jacobite rising. In 1715 a discovery of arms was made in Bath, and it was found that preparations had been made to proclaim the "Pretender." In 1718 a raid was made at Badminton, and pikes and muskets were seized, sufficient in number to equip a regiment, and eight gentlemen of position were arrested in Bath itself.

^{*} There are many stories illustrative of this. One gentleman refused to abide by the law against wearing riding-boots at the ball, and Nash vanquished him by asking him in public why he had omitted to bring his horse?

With the discovery of these plots to Marshall Wade, who was stationed in Bath, Allen was certainly concerned, but the statement that his part was the opening of letters in the Post-office rests upon a very vague tradition.

Whatever truth there may have been in this tradition, he certainly commended himself to Marshall Wade as a young man of great promise. The Marshall not only secured him the position of Post-master, but gave him his daughter, Miss Earle, in marriage. Allen's rise was very rapid, and his judgment was seldom at fault. As Post-master, he noticed the utter confusion in the practice of conveying letters on all but the main routes. Footboys took the letters to some inn which the mail coach passed, and the bags were carried to London, where they were sorted. Thence the same letters would perhaps return in other bags to the inn from which they started, and be conveyed by footboys to their destination, only a few miles from the place at which they were written. Allen contracted for the conveyance of letters from Exeter to Chester, vià Bristol, Bath, Gloucester, and Worcester, and gradually enlarged the system until "cross posts" extended their ramifications over almost the entire country. The profits were enormous; one estimate outs them at £,16,000 per annum, but the public gained even more than the contractor.

Bath Stone. The "Bath stone," which has acquired a reputation almost world-wide, was, in the early part of the eighteenth century, scarcely worked. Allen entered vigorously into the trade, opened quarries, arranged wagon-ways, built cottages for workmen, introduced machinery, and by his influence and example, demonstrated that Bath was provided with a building material, combining great convenience of working with extreme durability.

The splendid mansion of Prior Park, which is still one of the ornaments of the environs, was built in 1742, as a proof of the adaptability of the stone to all the requirements of modern building.

Allen's connection with the city did not actively commence until much of the work attending its restoration to prosperity had been accomplished. In 1725 he was elected an "honorary freeman," and a few months later a member of the Common Council, but we find few traces of any real participation in municipal life until his election as mayor in 1742. He seldom attended the Council meetings, and some of his recorded votes, in favour of the most retrograde measures for retarding free competition were such as to surprise those who knew his largeness of mind and general breadth of view. Allen was not, it will be remembered, a native of Bath; the principal pursuit of his life took him much away from it, and he probably regarded it at first, rather as a pleasant residence, than as the natural scene of any active exertion. When, however, the city had forced itself upon the attention of the fashionable world, Allen's interest in its internal affairs became excited, and his energy of character and strength of will were such as to impress his personality upon all coming in contact with him. Accordingly, in the fourth decade of the century, we find him exercising an influence so paramount over the political and municipal situation that the caricaturists made merry over the "one-headed" corporation.

William Pitt, afterwards Earl of Chatham, was, through Allen's influence, one of the city members for several years, as well as a frequent visitor at Prior Park. Here, indeed, was a rendezvous for the learned; Pope, Fielding, Richardson, Hoare, Hurd, and Warburton enjoyed the genial hos-

pitality which no one could better display. The charities of the city were warmly championed, its beauties were cultivated, and the early efforts of genius were sedulously fostered.

John Wood. The third member of the Triumvirate, John Wood, was an able architect, brought to Bath by Allen about the year 1727. He came just in time to impress upon the city which was to spring up, the stamp of his rare genius.

Wood was more than an architect. He was an administrator of a type rarely met with. The stagnation of the building trade had been so absolute during the seventeenth century that there were no competent workmen. Wood tells us how he had to bring gangs of excavators from the Chelsea waterworks, masons from Yorkshire, carpenters and plaisterers from London. "And it was," he continues, "then only that the lever, the pulley, and the windlass were introduced amongst the artificers in the upper part of Somersetshire, before which time the masons made use of no other method to hoist up their heavy stones, than that of dragging them up with small ropes against the sides of a ladder."

The work which the Triumvirate effected will not bear dwelling upon in detail. Pitching and paving, laying out broad streets, scavenging, watching and lighting, are now matters of course. Then, they were startling novelties. Each step towards sanitary reform had to be taken in defiance of a chorus of obstructives, in scorn of the prophecies of the "laudatores temporis acti."

But perhaps the severest contest of all was with a gang of licensed marauders, the Bath chairmen. We have now to deal with a body of men particularly noted for their civil and obliging manners. In those days they were the terror of the community; and yet necessary. As there was no toilet accommodation at the bathing establishment, all the visitors who dwelt elsewhere than in the lodgings which abutted on the baths, had to arrange their costume at home. They were then carried in Sedan-chairs to bathe, and back again, without change of clothes, to bed. Nothing could exceed the helplessness of an invalid, swaddled in a wringing wet bathingdress which he was anxious to change. On this helplessness the chairmen traded. If a "fare" was obstinate, the door of the chair was fastened on the outside, and the inmate became a prisoner. In cases of unusual determination to resist extortion, the top of the chair was removed, and; if it happened to be raining smartly, an hour of this treatment was found effectual even in confirmed cases. One gallant general was left in this predicament the whole of a winter's night, and was half killed by his supplementary bath. Imagine then the joy of the invalids when their natural enemies were routed and subdued, a tariff of charges fixed, and licenses refused to unworthy men.

A large sum of money was expended, as early as 1706, in improving the walks and roads in the immediate neighbourhood of the city, and the charming and romantic scenes with which the environs abound, were made accessible.

The increasing population of the city rendered the difficulty of supplying it with provisions and other necessaries a very serious one, and the completion of the work of making the Avon navigable from Bristol was hailed with joy. Even from the time of the Plantagenets, the citizens had striven to effect this, but the first barge did not pass from Bristol to Bath until 1727.

The new city presented a unique spectacle. The brilliant

successes of Marlborough had excited the national feeling, and infused a vigorous life into society; growing wealth demanded an object for expenditure, and the taste for gaiety and amusement made men and women, of every state of life, rank, and position, flock to Bath, where these could be obtained under circumstances the most favourable. Indeed, as the avenues to the Continent were closed, there was but little choice.

Noblemen thought it incumbent upon them to possess a house in Bath. Pitt built one house for himself in the Circus, and the Dukes of Beaufort, Monmouth, Kingston, Chandos, Bedford, and Marlborough, and Lords Howth, Clive, Sandwich, and Chesterfield, all had mansions here.

To mention the leading visitors would be but to repeat the names of those most distinguished in England by rank, fortune, achievements, or learning. The Prince of Orange, Frederick Prince of Wales, and afterwards his daughter Caroline, the Princess Amelia, Princess Mary, daughter of George II., George IV. when Prince of Wales, the Duke of Gloucester, and the Duke and Duchess of York, all visited the city during this century.

The life of the place was regular in its irregularity. There were certain times for bathing, for drinking the waters, for the promenade, and for music.

Although the conveniences for bathing left much to be desired, it was attended with elegance and some refinement. The bathing costumes were decorous, and sometimes very tasteful. Ladies and gentlemen met in the bath as in a reception room, with bows and compliments. Wooden bowls floated by the bathers, bearing handkerchiefs, nosegays, pouncet, and snuff-boxes, and other accessories. A well selected band of musicians discoursed music, and a piquancy was given to the criticism of the new arrivals and

the last scandal by the unusual concomitants. Pic-nics, concerts, excursions, luncheons, were got up by private persons; and a visitor of fashion could spend both day and night in an endless round of elegant gaiety. Coffee houses were established for ladies, and proved very convenient lounges, whilst those for gentlemen were rebuilt or improved. In one word the whole city was given up to the decorous but eager pursuit of pleasure.

We have not stayed to chronicle the connection of Bath with public events, because this was rather accidental than real. William Pitt, for example, was a city member, not because there was any particular political fellow-feeling between himself and the citizens, but rather because his election was a compliment they were glad to pay to a well-known man.

Gordon Riots. There is, however, one piece of serious history which forces itself upon us in the midst of this whirligig of merriment—the Gordon Riots.

For a time Bath was completely under mob law. Dr. Brewer was then the Catholic priest, and lived at Bell Tree House, which had been the old Rectory house of St. James's parish. There he had a little chapel, but as this was too small for the growing requirements of his congregation, he built a larger one on St. James's-parade. The building was just finished, but before it was opened the mob plundered and gutted it and the presbytery, burning the registers and a valuable library and collection of manuscripts belonging to the distinguished mathematician, Bishop Walmesley. Dr. Brewer himself fled for his life, and, so terrified were the citizens, that he went from door to door craving admittance and protection without success, and was even refused an asylum at the Guildhall. He would certainly have fallen a victim to the fury of the mob, but the proprietor of the

White Lion Hotel gave him shelter, and took him through his back premises to the river, and thence in a boat to a place of safety. On the 11th May, 1780, martial law was proclaimed, and the vigorous action of the military reduced the mob to subjection. John Butler was tried at Wells as the ringleader of the rioters, and was executed in Bell Treelane, the scene of his violence. The next year Dr. Brewer recovered, in an action against the Hundred, £3,700 as compensation.

We have already mentioned the increase of Rebuilding of the population during this phenomenal centhe City. tury. The expansion of the city itself is still more remarkable. At the commencement of the century the mediæval walls enclosed the whole area built upon, except a suburb clustering around St. Michael's Church, and a few mean houses in Southgate-street. These walls enclosed a small pentagon; it is difficult for us to realize how small. The stranger entered the city at the north gate, where the opening from High-street to Bridge-street now is, and left it at the south gate, hard by St. James's Church. The west gate was at the end of the buildings of the same name, and the east gate opened on to the strand of the Avon.

In 1775 the north and south gates were removed, and twenty years later the west gate. The east gate can still be seen in Slaughterhouse-lane, at the back of the Market.

The first of Wood's great enterprizes was Queen-square, which was built in 1729; the North and South Parades followed, and then the Circus, Milsom-street, Edgar-buildings, and the Royal Crescent.

Wood was aided and afterwards succeeded by his son, and, before the end of the century, their example had raised

up a host of builders, by whom the surrounding hills were made to shine with rows of stately houses.

To the same century many of the existing public buildings owe their origin. The Guildhall (1766 to 1775) and the Pump Room (1796) were erected mainly from the designs of the City Architect, Baldwin, whilst the school house of King Edward VI. Grammar School (1752) and the Assembly Rooms in Alfred-street (1771) bear upon them the marks of the architectural genius of the elder and younger Wood.

Mineral Water Hospital. But perhaps the greatest achievement of the century was the establishment of the Mineral Water Hospital. This noble charity has for

its object the extension of the benefits of the mineral waters of Bath to the afflicted throughout the nation. It was a revival of those facilities for the reception of travelling invalids, which were destroyed at the Dissolution of the Priory; and it is pleasant to think that our Triumvirs, Nash, Allen, and Wood, were not too much busied with the reception of the wealthy and fashionable to heed the sacred claims of those whose title was their sickness and their poverty. The foundation-stone was laid in 1738, and whilst Nash exerted himself unwearily and most successfully to collect funds, Allen gave from his quarries the stone for the fabric, besides a donation in money, and Wood contributed the less material but not less valuable gifts of his skill and supervision. The hospital provides accommodation for patients suffering from diseases for the cure of which the waters are effectual. No payment is made; no recommendation is required, and no preference is given to the inhabitants of Bath. In consequence of the national character thus impressed upon the charity, it is authorised by special Act of Parliament to hold lands notwithstanding the statutes of Mortmain.

THE NINETEENTH CENTURY,

WITH NOTES ON THE PRESENT CONDITION OF BATH.

The history of our city in the present century is not quite a continuation of the story of the eighteenth. The peace of 1815 removed the hitherto unsurmountable barrier to foreign travel, and many who had been before contented with the beauties of their own country rushed eagerly to the scenery and amusements of the Continent.

If Bath had enjoyed no other claim to recognition than that of a place suited to kill some idle weeks, its prosperity would indeed have been once more in danger. But even before the tide of visitors began to ebb, there had been an internal movement towards the establishment of the city on a broader basis.

Brilliant, meteor-like, as was the career of the city during the eighteenth century, we cannot help being struck with a feeling of unreality. The idea of many hundreds of gaily-dressed ladies and gentlemen sauntering through life, bathing, promenading, and dancing within the city, and forming themselves into Watteau-like groups on the slope of the hills, and all under the paternal despotism of an Arbiter Elegantiarum, is not one which we can connect with stability.

Already it had become apparent that the artificial high pressure could not be indefinitely sustained; and there had grown up an opposition to that concentration of all amusements and occupations into one small focus, which had been the ruling principle of management.

Wars of succession between rival masters of ceremonies, disputes between the frequenters of different assembly rooms, and a general intolerance of the gilded fetters in which an earlier generation had delighted, were but the indications that a healthier and more manly system was required.

Bath had indeed a better future, and was advancing rapidly towards it. As the floating population diminished, the number of permanent residents increased, and the influx of men of large minds and cultured intelligence brought about a more real and intelligent interest in municipal affairs.

We should be sorry to infer that the improve-Municipal ment in local administration dates only from Reform. the Municipal Corporations Reform Act (1835). There had, during the later years of the past and the earlier of the present century, been an earnest effort not only to improve the city, but also to remedy the grossabuses which tainted the administration of the civic charities. But the Act and the enquiries and orders of the Charity Commission not only compelled reform, but provided a machinery for giving effect to it. The boundaries of the city, as defined by the charter of Queen Elizabeth, were very much wider than those which were represented by the mediæval walls, but they did not include the transpontine parishes which had, in all but administration, become parts of the city.

The united parishes of Lyncombe and Widcombe contain a large urban and a still larger suburban population intimately associated with their friends beyond the river. The parish of Bathwick formed a distinct aristocratic district under the government of Improvement Commissioners. The estate consisted of low-lying meadows, which

for centuries had been little better than a swamp. It owes its development and improvement to the energy of Sir William Johnstone, who, on his marriage with Miss Frances Pulteney, assumed his wife's maiden name. He raised the houses he built on arches, and in 1770 erected the bridge over the Avon which bears his name, and connects Bridge-street with Argyle-street. In 1827 and 1836 his successors in title, the Earls of Darlington (afterwards Dukes of Cleveland) influenced the erection of two other bridges to connect the estate with Bath. These are vested in public companies, and are known respectively as the Bathwick and North Parade bridges.

The Municipal Corporations Act placed the whole of these extra urban parishes within the jurisdiction of the Town Council.

The ancient civic charities which have during the present century been put upon a sound and satisfactory basis are as follows:—

The Hospital of St. John the Baptist.

This charity was founded about the year 1180 by Bishop Reginald Fitz Jocelyn for the aged poor. Its endowment was in land, and, as the value of this increased, the revenues became more than sufficient for the primary purpose. During many centuries the income was appropriated and squandered by the Corporation, and when this abuse was checked, the charity suffered scarcely less, from the improvident rapacity of successive Masters, who leased the estates at nominal rents, and received the premiums paid by the lessees. Chancery proceedings were taken in 1864, and after many years of litigation a scheme was, in 1877, settled for future administration. The government is vested in a Board of

fifteen Trustees, and the income is now about £1,700 per annum, which, as the leases fall in, will be very largely increased. Six old men and as many old women of the age of fifty and upwards, and who have not been in recent parish relief, are provided with rooms in the Hospital, near the Hot Bath, and receive a weekly allowance of 10s. Pensions are also granted of the same amount to twenty-two men residents, and the number of this class will be from time to time increased as funds permit.

St. Catherine's Hospital, or the Black Alms and the Grammar School.

These distinct charities are under one foundation. They owe their nominal origin to a grant made out of the monastic property by Edward VI., but this was, as there is small doubt, a mere re-constitution of earlier charities which had been administered by the Prior and monks.

The Hospital is in Bimberry-lane, and affords accommodation for fourteen aged women, each receiving 5s. per week and a small allowance of coal. The income appropriated to this charity is £280, the remainder of the revenues being required for the maintenance of the Grammar School. This, after being for a time held in some rooms above the West gate, and afterwards in the nave of the desecrated Church of St. Mary, intra muros, found a home in the building in Broad-street. The School was plundered like the rest of the civic charities, but is now a credit to the city. The average number of scholars on the books is 120. An excellent education is provided, and the fees amount in the senior department to £9, and in the junior to £5 per annum.

The Black Alms is under the management of the Municipal Charity Trustees, but a distinct body was, by a "scheme" settled in 1872, entrusted with the regulation and administration of the School.

Bellott's Hospital.

This was founded in the reign of James I. by Thomas Bellott, steward, and afterwards executor, to the great Lord Burghley. It may not improbably have been an amplification of the small foundation of Abbot Feckenham; and was certainly an attempt to provide for poor strangers visiting Bath for cure, some of the facilities of which they had been deprived by the Dissolution.

Lady Scudamore in 1652 added to the original charity a small endowment to secure the services of a physician, and other additions have since been made. The charity is under the control of the Municipal Charity Trustees, and provides accommodation for ten poor invalids, with conveniences for bathing and a small weekly alms.

The Hospital of St. Mary Magdalen at Holloway.

The first purpose of this very ancient charity, which was annexed to the Bath Priory in the reign of Henry I., was to harbour lepers on their journey to the city. As the disease became less fearful in its ravages, the building, situate at the top of Holloway, was converted into a sort of lunatic asylum. The charity was fearfully plundered, and under an Act of Parliament (19 and 20 Vic.), its revenues were directed to be accumulated, until a fund should have been attained for the foundation of an asylum for idiot children.

The present structure was built by Prior Cantlow in 1495, and was restored in 1837.

The citizens have during this nineteenth century done more than restore to their charitable objects the properties of these ancient institutions.

The Mineral Water Hospital was in 1861 doubled in size at a cost of £20,000, and now provides beds for 160 patients from all parts of England.

The Royal United Hospital is the result of the amalgamation in 1826 of two older institutions—the Bath City Infirmary (established in 1747 and reconstituted in 1792), and the Bath Casualty Hospital (founded in 1786). The hospital contains 120 beds, and is maintained at an annual cost of nearly £5,000.

These are the largest and most important foundations for the sick poor of the present century, but there are also numerous dispensaries and special institutions for particular diseases, all of which are unostentatiously performing thoroughly good work.

The nineteenth century has been prolific in Churchbuilding. The greatest work, the restoration of the Abbey Church, under the directions of Sir Gilbert Scott, finds a place in another article.

Unfortunately the ancient city churches were rebuilt during a period of prolonged depression of architectural taste. St. James's Church was commenced, on the site of an older building in 1768, and the tower was added in 1846.

The Church of St. Michael extra muros as now existing is the second on that site since the Reformation. It was erected in 1837. The little Church of St. Thomas-à-Becket in Widcombe (formerly a chapel annexed to St. Mary de Stalles) is a pre-Reformation structure, and was restored in

1852. About twenty churches have been erected during the century, and many have considerable architectural merit. A list of the more modern city churches will be found elsewhere.

In 1830, William Beckford, the eccentric author of "Vathek," resided in Bath, and erected for a freak, the picturesque tower on Lansdown, which forms a prominent object in so many views. It is now used as a Mortuary chapel for the Walcot cemetery.

Perhaps there was no better work done in the present century than the laying out of that beautiful pleasure ground which, under the name of the Victoria Park, affords health and recreation to all classes. It formed a part of the estate known as the Bath Commons, which was, as we have seen, allotted to the free citizens under the award of Sir Nicholas Hyde. In 1830 it was opened by the Princess (now Queen) Victoria. In 1879, under the powers of an Act of Parliament, the Corporation purchased all the rights of the freemen in the estate in consideration of certain annuities, and this splendid property is now vested absolutely in the citizens.

The Royal Avenue, which forms the entrance to the park, was acquired from the Rivers family in 1886, in consideration of an annual rent-charge.

The municipal government of the city is vested in a Mayor, 14 Aldermen, and 42 Common Councillors, and the same body forms the Urban Sanitary Authority. Bath is divided into seven Wards for the election of Councillors, and the constituency comprises 8,083 voters.

The administration of the Poor-law is by a Board of Guardians, triennially elected, and representing 6 urban and 19 rural parishes. The Union Workhouse contains on an average 580 pauper inmates, and out-door relief is annually granted to 985 cases. The proportion of paupers is 21'98 per 1,000 of population, as compared with the average of 28'6 throughout England and Wales.

A School Board has existed since the passing of the Education Act of 1870. It consists of 11 members. Three Board Schools have been built, affording accommodation for 800 children. The Denominational schools within the district provide for the educational wants of 6,500 children.

For Parliamentary purposes a portion of the parish of Twerton is annexed to Bath, and the constituency numbers 6,837. Ever since the reign of Edward I., Bath has been entitled to return two members to Parliament. The present representatives are Mr. Wodehouse (Liberal Unionist) and Colonel Laurie (Conservative).

A Court of Quarter Sessions for the Peace is held at Bath, and the duties of Petty Sessions are discharged by a Bench of 29 Justices.

The Corporate property is large, consisting principally of houses within the city. It produces a gross income of \pounds 10,400, which is applied in aid of the Borough Rate.

Hence, although a large sum is annually expended in the cleansing, regulating, and improving the city, the rates are comparatively low. The General District Rate (including the School Board Rate) varies from 2s. to 2s. 4d. in the £, and the Poor Rate from 9d. to 10d.

The city is supplied with water from waterworks belonging to the Corporation, the supply being mainly derived from springs at Cold Ashton, in Gloucestershire. In few towns is the water-rent so moderate.

Since the opening of the Great Western Railway from

London to Bath in 1839, the facilities for passenger traffic have been constantly increasing. Express trains bring the city within 2½ hours of London, and the Midland, and Somerset and Dorset, lines connect it conveniently with other parts.

Of the amusements of Bath we need say but little. Dancing, music, the theatre, chess, hunting, shooting, fishing, boating, cricket, tennis, football, and athletics, all woo their votaries, whilst the more studious may find earnest fellow-workers in Archæology, Zoology, Botany, and other kindred pursuits.

We have traced the growth of Bath from a cluster of miserable cottages to a stately city with a population of nearly 54,000. It needs not that we dwell upon its beauties, a pleasant stroll or two through street and lane will produce an impression more vivid than many pages of description.

But the visitor will be struck at what will appear to be the unreasonable affection for the city of those even who have been resident for a short time—an affection too real and too intense to be inspired by mere charms of situation or architecture. He will wonder at this glamour which the city casts upon its inhabitants—at their unwillingness to leave—at their yearning to return. Let him have a care. The disease is infectious, and the Bath waters only aggravate it.

BATH IN ITS RELATION TO ART, SCIENCE, LITERATURE, AND EDUCATION.

J. Murch, D.L.

ART.

IN modern times Bath has been chiefly known for its healing waters, its fashionable society, its handsome buildings, and its beautiful scenery. The fame has been well deserved; few cities have been more attractive in these respects; but it has had other higher claims not so fully recognised. It has had a history both civic and national, as when Edgar was crowned in its Abbey, when Roundheads and Cavaliers fought in its streets, and when rulers and statesmen began to flock to its springs. It has had an intellectual character conducing to the refinement by which it has been distinguished and connecting it with the higher life of England.

One of the first refining influences was that of Art, which had considerable power so far back as the Roman period. The term Art includes, amongst other things, Architecture, Painting, and Music. These will now be treated in order. Their connection is not invariable, but the phase of mental culture which has been favourable to either has been favourable to all. How rich Aquæ Solis was in Architecture may be inferred from the Roman bath lately discovered, and the magnificent remains of the Temple of Minerva in the

Literary Institution. What abundant treasures she had in workmanship of various kinds has been shown in the illustrated volumes of successive antiquaries. Nor is the subject exhausted; year after year fresh discoveries are made; more and more beautiful things are found; still the search goes on and still the seeker is rewarded. There is an anecdote that when someone just arrived in Rome inquired for its antiquities, his companion, stooping down, presented him with a handful of dust. And we, whenever we descend below the surface in the neighbourhood of the springs, rarely fail to find some relic of the refined, all-powerful people who settled there.

Even if it had been only known that Bath was thus distinguished, it would have been Results. interesting. We should have valued the simple fact that a dreary swamp, with a few scattered huts, had been transformed into an elegant city. But it is a great practical advantage that the proofs of Roman skill and taste, after being buried for more than a thousand years, are available for the enjoyment and artistic education of modern times. Students in Architecture come for lessons in design and proportion to the pillars, friezes, and pediment of the Temple of Minerva; students in Sculpture find a model of exquisite beauty and classical vigour in the bronze head of the goddess; and work which men like Flaxman and Wedgwood did to improve the national taste by copying objects brought from Italy, may now be done to some extent by means of the lamps, cups, urns, vases medallions, and votive altars found here.

Later History.

Later History.

Later History.

Saxon period. Through many years there were mints from which the National coins were issued.

The Royal Cabinet of Stockholm contains a large collection of the Bath stamp of the reigns of Athelstan, Edgar, and Ethelred; part of the ancient spoil of the Scandinavian Vikings. Only few relics of Norman Architecture exist, the chief being the pillars built in at the foundation of the east corner of the Abbey Church. The decorative taste of various periods is illustrated in the Abbey. Bath is shown to have done something for ecclesiastical art in the sculptured story of Bishop Montague's dream on the west front, and the fine bold carving of the time of James the First on the entrance doors. In the interior there are Prior Birde's chantry, and the groined stone ceiling of former times, and the reredos, the carved wood work and the coloured windows of later ones.

For a long time the Abbey Church was the Necropolis of Bath, the chief place of sepulture for people of distinction. Until lately none of the large cemeteries now surrounding the city existed; only the beautiful village churchyards for those who preferred to rest in the great Temple of Nature. Hence the accumulation of sculpture in the Abbey: tombs, tablets, emblems, medallions, erect figures, recumbent figures, of every conceivable variety, although in many cases of questionable artistic or historic interest. The most conspicuous tomb is that of Bishop Montague; it is of the Elizabethan style, the recumbent figure in pontifical robes and the hands clasped in prayer. There is also the stately monument of Lady Jane Waller, wife of the great Parliamentary General, whose figure is given, a knight in armour, the nose of which was said, incorrectly, to have been knocked off by James II. when he visited the Abbey. The skill of Flaxman is shown twice: in memory of Mr. Bingham, a senator of the United States, and of

Dr. Sibthorp, an accomplished botanist of Bath, who left an estate to defray the cost of publishing his "Flora Græca." Chantry's also twice: a monument of white marble to William Hoare, an early member of the Royal Academy, and a fine medallion of Admiral Bickerton, with a graceful figure bending over an urn. Here too the Bacons, father and son, with Nollekens, Westmacott, and other sculptors, metropolitan and provincial, noted in their day, found scope for their genius, and thus this branch of Art profited by the increasing celebrity of Bath. But it must not be supposed that a large proportion of the people interred in the Abbey consisted of those who came for the waters. The city was a residence for many distinguished by rank, fortune, ability, social worth and public usefulness, who were commemorated in this way; so that while we admire the wit, we demur to the truth, of Dr. Harington's epigram:

> "These walls adorned with monument and bust, Show how Bath waters serve to lay the dust."

About the middle of the eighteenth century

Modern Bath became more alive to the claims
of Art. From time to time the Royal charters
and visits caused memorials worthy of being treasured in
after-times. During Queen Anne's reign the Corporation
acquired two magnificent maces, silver gilt, embossed with
appropriate heraldic designs. In 1734 the Prince of Wales,
father of George III., visited the city and gave a beautiful
silver gilt salver and loving cup of the time of Benvenuto
Cellini. But once more the general taste took the direction
of Architecture. Fashion had set up her throne, and crowds
of all classes came to worship her, amongst them "the
noblest, wittiest, and wealthiest of the land." More and

better houses were wanted; streets, squares, circus, crescents, all of fair proportions, sprang up rapidly. And Bath was fortunate in its architects. All honour to the genius and energy of the two Woods, father and son. In the hands of inferior men, what fatal mistakes might have been made! A large and skilful yet wise and practical plan was carried out, combining the effects of various noble piles of building and harmonising all with the surrounding scenery. Macaulay mentions the transformation from "the four or five hundred mean old houses crowded within the Roman wall on the banks of the Avon into the beautiful city stretching up the hills," the city "which charms even eyes familiar with the masterpieces of Bramante and Palladio."

As yet the English people cared little for Painting, not even the more educated, who admired and understood Greek and Italian architecture. There had been comparatively little foreign travel to give knowledge of the great masters whose works had created a new intellectual world in the older cities of Europe. Only meagre encouragement was given to the few struggling artists who set up their easels. Gradually, however, young men came, aiming first at what was most likely to give employment—portraiture, and willing, even when well-qualified for higher work, to wait patiently. Such was the case with Gainsborough, who began here in 1760 by painting portraits at five guineas each. Happily he was not one of those of whom it could be said—

"Chill penury repressed their noble rage
And froze the genial current of their soul."

In the interval of his unprofitable sittings he studied the fine trees of the neighbourhood. One near the London road is still known as Gainsborough's elm. Hence his studio was sought by the more discerning visitors. Men and women of eminence at the Bar, in Music, on the Stage, and in the Senate were charmed by his social qualities as well as his artistic power. For full-length figures his price soon rose to fifty, seventy, and a hundred guineas. he painted Lord Chancellor Camden, Bishop Hurd, Miss Linley, Sheridan, Richardson, Garrick, Burke, Sterne, Quin, and many others. One of the earliest members of the Royal Academy, he often sent up pictures by a prosperous London carrier, who generously refused payment. But in return Gainsborough presented his friend with six of his best works. Some idea of their ultimate value may be formed from the fact that when at length the treasures were sold the National Gallery secured two-the "Parish Clerk" for £,500, and the "Harvest Wagon" for £2,500, the prices being considered low. Lately another, "The Sisters," from another gallery, realised $f_{.0.075}$.

After living fourteen years in Bath, Gains-W.Hoare, R.A., and the Barkers. borough removed to London. How the fame he had acquired aided him in his larger sphere is well known. What he did to found

the English school, of which the nation is now so proud, may be seen in the greatest galleries of the country. One of his contemporaries in Bath was William Hoare. Private collections contain crayon drawings by him of much merit, and there are two good works in local public buildings—the "Altar Piece," in the Octagon Chapel, and an appropriate picture in the Mineral Water Hospital. During the latter part of Hoare's life the most promising artist in Bath was Thomas Barker, a Welsh lad from Pontypool. He came at the age of thirteen, and worked his way to a good position

with the aid of a prosperous coach-builder, who sent him to Rome. His celebrated picture, "The Woodman," sold for 500 guineas, and commissions were given for copies at high prices. Its popularity was shown by the skill of our grandmothers, who reproduced it in silk and worsted; witness Miss Linley's notable example so long in Leicester square. For half a century Thomas Barker exhibited at the British Institution. One of his most remarkable works was a large fresco in his own house, "The Inroad of the Turks upon Scio." A brother, Benjamin Barker, also settled in Bath, has been honoured by the title of the English Poussin. His landscapes are greatly admired for their truth, colour, and harmony. Of high repute also was a son of Benjamin, Thomas Jones Barker, who after receiving his artistic education in Bath, occupied a prominent position many years in London.

Sir T. Lawrence, P.R.A., and others. Thomas Lawrence, born at Devizes in 1769, was placed at an early age under an artist in Bath, probably Hoare. His progress was so good that when only thirteen he received from

the Society of Arts a present of five guineas and a silver pallet for copying in crayons the Transfiguration by Raphael. And yet he supported himself by painting half-guinea likenesses of the fashionable people of Bath, thus however acquiring the style which, through a long prosperous career in London, made him the favourite painter of the upper classes. Although out of chronological order it may be mentioned here that Sir Frederic Leighton, now President of the Royal Academy, spent some of his early years in Bath, his parents then living in the Circus; also that a distinguished member of the Academy, Mr Long, is a native of the city, and began his successful career in it as a portrait

painter. In the list of the Lawrence period are two good miniature painters, Ford and Jagger; the latter is said to have often netted £700 per annum; also Sheldon a fruit painter, an excellent colourist, whose transparent grapes and currants are still admired. Following these were Syers, Duffield, Hardwick, the Hardys, Maddox, Rosenberg, all contributing in various styles and degrees to the steady growth of the English school. Duffield, a student of the Royal Academy and of the schools at Antwerp, was chiefly known as a painter of still life, though he also excelled in portraits. Hardwicke, one of the earliest members of the Royal Institute of Water Colours, acquired a good standing in Bath by his successful painting of landscapes and old buildings. The name of Wills Maddox was familiar locally in connection with Mr. Beckford, of whose tower on Lansdown he made good drawings. Elsewhere he gained repute by painting the Sultan of Turkey, who sat to him for a portrait to be presented to the Queen of England. Of George Frederick Rosenberg recollections are still so pleasant that the following account by a relative may be given:-"The son of a local artist, he was born in 1827 and elected an associate of the Society of Water Colours in 1851. His early subjects were still life, but he became equally well known as a landscape painter. His charming bits of English river scenery, as well as his pictures of Norwegian mountains, added to his reputation. He painted a fine study of a Norwegian Glacier, called 'The Ice Plough,' only a few weeks before his death in 1869, which was probably caused by his sitting so many hours in close proximity to the ice."

Present Aids to

Much undoubtedly is due to the Bath artists of the present day. For although there is now no eminence here like that of former

times, love of art is still worthily cultivated. The attractive force of London is now so great that no provincial town can hope to compete with it as Bath long did. Even the exhibitions of the local Graphic Society which, within the last half century, were very useful and popular, could not be sustained, in consequence partly of the ease with which metropolitan exhibitions could be seen. Still, there are valuable aids to art culture of various kinds. Especially useful is the School of Science and Art, connected with the Science and Art Department of the Government. Beginning as simply the School of Art in 1854, it took the larger title in 1876, and is well fulfilling both purposes. year commencing May, 1887, the number of day students was 76, of evening students 120. Efficient aid is given by the Government on the usual conditions, towards a building fund and for the purchase of objects of study. Prizes and Scholarships, local and metropolitan, are also awarded to superior students. With this assistance, the Bath school has done good service in the artistic and technical training of all classes amateurs, professional artists, handicraftsmen, and others; all have received a fair share of the honours and rewards given by "the Department." Within the last few years the National Silver Medal has been awarded to a Bath artisan student. A suitable building is now the chief thing needed to develop more fully this extremely useful institution. An effort was made in connection with Her Majesty's Jubilee to originate a Gallery of Art. It was considered that the scheme would be practicable, because a home was required for a bequest of a valuable collection by a lady of Bath, Miss Holburne. At first the proposal was warmly welcomed, but soon another came for an institution for Convalescent Patients, which appealed to the sympathies of a larger number. Funds for

the latter proved inadequate, and both plans collapsed, but the establishment of an Art Museum cannot be long postponed.

Music.

In its relation to the art of Music, Bath has no ancient claims. Traces of song in British, Roman, Saxon, and Norman times are found elsewhere, but not here. When at length the city regained repute, the Abbey bells were rung to welcome visitors, and violins were scraped when they danced or drank the waters. Hence Anstey makes his hero write:—

"No city, dear mother, this city excels
In charming sweet sounds both of fiddles and bells."

The Herschels. As early as 1744 something was done in musical organisation. We read of a Festival in that year at Salisbury Cathedral, "at which several bands from Bath attended." Two decades passed, and Linley did good work, in furtherance of which he induced the brothers Herschel to settle here. They were engaged for the Pump Room Band, and William also became organist at a fashionable chapel. His abilities soon brought him into great request, the work of a private teacher being added to his engagements at balls, concerts, and oratorios. Caroline Herschel, his sister, aided him largely as his leading solo singer, training the trebles and copying the scores.

The Linleys. From this time Bath was known for its good music, Linley's family, "the nest of nightingales," as Dr. Burney called them, being in high repute. Far and wide their fame extended. Wherever grand performances took place, Eliza Linley was the bright particular

star. Of all the attractions of Bath, she was then the greatest. Overwhelmed with offers of marriage, she eventually gave herself to Sheridan. Keen as was the interest in the various romantic incidents of her life prior to that event, it would have been keener if those whom she fascinated by her voice and loveliness could have looked into the future. It was in 1772 that she became the wife of—

"The orator, dramatist, minstrel, who ran Through each mode of the lyre and mastered them all;"

and in 1778 she was amongst the brilliant crowd in Westminster Hall, immortalised as Reynolds' Saint Cecilia, "the beautiful mother of a beautiful race," listening to her husband's wonderful speech at the trial of Warren Hastings.

Next to the Linleys at Bath was an accom-Rauzzini. plished Italian, Signor Rauzzini. Leaving Rome, his native city, when very young, he began his career at Vienna as principal singer at the opera, where he had the friendship of Metastasio, but soon entered the service of the Elector of Bavaria at Munich. In 1774 he came to London, where also he was engaged at the opera, and soon acquired great eminence both as actor and author, winning especially the enthusiastic admiration of Garrick. sensitive nature, however, unfitted him for the excitement of the stage and the popularity of London. He preferred the quieter life of Bath, where also he had scope for his fine powers. The position now occupied by Bath in the musical world may be inferred from what Rauzzini was and did. For thirty years, from 1780, when he came, till 1810, when he died, he was Director of the Public Concerts—usually twelve every season, besides choral nights-and gathered around him such pupils as could be found nowhere except

in London. Braham was articled to him, and lived in his house three years. Incledon studied under him, and laid the foundation of his fame at the Bath Theatre. Amongst his distinguished female pupils were Signora Storace, Madame Mara, and Mrs. Billington. The first of these ladies, in conjunction with Braham, indicated the general respect and affection by erecting to his memory a monument in the Abbey Church.

At the close of the last century few men were Dr. Harington. better known in the musical world of Bath than Dr. Harington. A good Glee Club long flourished under his auspices, and cultivated a taste both simple and classical. Descended from Sir John Harington, of Kelston, author of "Nugæ Antiquæ," with great abilities as a poet, scholar, physician, mathematician, and musical composer, his influence in what he undertook was considerable. When in 1795 the Glee Club shared the fate of all human things, it was succeeded by the Harmonic Society, of which the Reverend John Bowen was, with Dr. Harington, one of the founders. A little later the interests of music were aided by the erection of a new theatre, more spacious and beautiful than any Bath had known. The patent from the Crown granted for the old one was renewed for it, and the Bath Theatre Royal continued to be the nursery of the dramatic ability of England, an honour which it has enjoyed to some extent in recent times. In 1860 the common lot of theatres befell the building; it was destroyed by fire within a few hours of a play in which Mr. and Mrs. Charles Kean took leading parts. Great as the change in public taste had been since the days of the Linleys, there was sufficient love of the drama in Bath to allow of a new building being erected on the site of the old one, equal to it in beauty and convenience. This was in 1862. Through several decades the tide of success varied; at present it is satisfactory in consequence of the good management. From time to time the best works of the English Drama are presented by a succession of high-class companies.

In concluding this sketch it will be sufficient to glance at some of the incidents since the death of Rauzzini. A few now living remember how, during the reign of Dr. Ashe as conductor, Catalani sang at all the nine concerts of a brilliant season. They would also call to mind the large audiences collected in successive years by Sir George Smart and Mr. Loder when they respectively wielded the bâton. Amongst the older lovers of music in Bath are probably some who were members of the Anacreontic Society, founded partly by Canon Bowles and Thomas Moore. And both old and young know how much the city is indebted to the Quartette Society, under the able and generous direction of Mr. Harris, who has been unwearied in his efforts to promote a love of purely classical music. Coming nearer to the present day, the record of a single year, the last, conveys a fair idea of the present relations of Bath with Music. Precedence is due to Herr Sondermann and the Choral Union, who gave Handel's "Samson" in the spring and Wallace's "Maritana" in the autumn. The Philharmonic Society had four successful performances, including the "Golden Legend," conducted by Sir Arthur Sullivan, assisted by Sigñor Visetti; also the beautiful concert in celebration of the Queen's Jubilee. Very useful also have been the concerts of the Orchestral Society and the Temperance Choral Society, proving that refined amusements are more and more appreciated by the industrious classes. As to the general public, no music has been more popular than that of the City Band, with Herr van Praag as its leader. The daily crowds in the Park and the Pump Room witness to the extent to which the taste of former days prevails. The lessee of the Theatre kindly lends it for a gratuitous popular concert of high-class music, the building being crowded to excess. And if to this work be added the operas at the Theatre, other performances at the Assembly Rooms, and numerous amateur private concerts, it will be seen that Music now maintains a position in Bath which would have satisfied even the Linleys, Herschels and Rauzzinis of former days.

INDUSTRIAL ARTS.

For a long time, up to the middle of the last century, Bath was known as a clothing town. There is a tradition that in the Saxon period the armorial emblem of its great monastery was a shuttle. Many towns and villages in Somerset, Gloucester, and Wilts still carry on the same industry. Twerton, within two miles of Bath, has a large factory noted for its good broad cloth and other woollen goods.

The woollen manufacture of the district may have chiefly caused the formation, in 1777, of "The Bath and West of England Society." Its object was "the promotion of Agriculture, Arts, Manufactures, and Commerce," and its founders—the Duke of Bedford, Sir B. Hobhouse, Dr. Parry, and others were especially interested in the breeding of sheep. In recent years the annual meetings have been made more instructive by the addition of specimens of the fine arts in one spacious building and of notable manufactures in another. The Exhibition at the hundredth anniversary, celebrated at Bath

in 1877, was so large that it occupied forty acres of ground. The Society ranks next in importance to the "Royal Agricultural," which it greatly surpasses in age.

In the days when letters were written on letter paper "Bath Post" was much used. The manufacture ceased with dear postage. Contemporaneously with good paper was good printing. Few towns in the kingdom were more noted in this respect. Dr. Hartley, having written his "Observations on Man" in Bath, was fortunate in being able to see it through Mr. Cruttwell's Press. Sole's "Mints of Great Britain," mentioned in another part of this work, is a fine specimen of typographical skill from the same press. Many other good examples of local typography might be mentioned.

Bath cabinet-making has now grown into much repute. Both design and workmanship have been so good as to insure a large demand even from distant places. At the first "Great Exhibition" there was a beautiful book-case made by a working-man at Bath in his leisure time. One of the presents to the Princess of Wales on her marriage was an elegant écritoire from the inhabitants of Bath, made by Mr. Knight. Amongst the ornaments were nine medallions illustrative of the connection of royalty with Bath, from the discovery of the springs by Prince Bladud to the opening of the Park by the, then, Princess Victoria. These were drawn and presented by Mr. Arthur Murch.

Even the residents of distant cities have discovered the excellence to which the art of carriage building has attained in Bath. Prizes have been often awarded to the builders both in England and on the Continent for their combination of lightness, beauty of form and convenience. In connection with this important industry is a branch of the

London Technological School of Coach Builders, which aids in maintaining the superiority of Bath in this respect. The wheel-chairs made here have long been sent to all parts of the kingdom. Mail coaches were a feature of the Bath plans for the more expeditious carriage and delivery of letters. The Cross Posts, established by Ralph Allen, were worked chiefly by wretched men and boys on miserable hacks. At length, in 1784, John Palmer caused a great reform, suggested at first by a practical inconvenience of another kind. He was proprietor and manager of the Bath Theatre, and often found his actors delayed and his audiences disappointed in consequence of the slowness of travelling. Having conceived the plan of mail coaches, he obtained the aid of Mr. Pitt in carrying it out. Great was the joy of the Bath people on seeing the first arrival of the coach originating with their townsman, the journey having occupied fourteen hours instead of three days. And rightly did all classes honour both Allen and Palmer, remembering what is due to men

"Who by new arts life's uses have improved,
And for good deeds are honoured and beloved."

SCIENCE.

It would not have been strange if a city noted for amusements had failed to cultivate science. And certainly those who have been remarkable for doing so in Bath in any age have been comparatively few. But they stand out nobly; they did good work in their day; they were pioneers of a great educational movement, and connected the city of the springs with discoveries of no common importance. Thus much may be said as to modern times; going back we only grope our way amidst dim conjecture; not till we come to the eleventh and twelfth centuries have we the names of any men of science in Bath.

History then tells of John de Villula who came to England in the reign of William the Conqueror, and settled here. The chief of the great Bath Monastery, he gathered around him men from various countries distinguished for their learning. Of later date was Adelard, a scholar of Spanish, Egyptian and Arabian reputation, to whom the scientific world became indebted for the translation from Arabic into Latin of the Elements of Euclid. One of the favourite studies of the time was Alchemy, but the Priors of the Bath Monastery found that there was a soul of good in things evil. Alchemy was to them the parent of modern chemistry,-"the illfavoured parent," we are told, "of a fair and beautiful daughter." Prior Birde, whose elegant little chapel is in the Bath Abbey Church, found constant employment in his laboratory, and Prior Holway directed his studies to the causes of the temperature of the springs.

Succeeding Centuries. Coming to the seventeenth century, we find that the few writers on scientific subjects in Bath were medical men. They wrote chiefly on

were medical men. They wrote chiefly on questions connected with their profession; one or two only made original discoveries or enlarged other domains of human knowledge. In the eighteenth century the record is more satisfactory. We find a Philosophical Society, at the meetings of which Papers were read by William Herschel, who, though known chiefly as Professor of Music, found time while directing public concerts and giving private lessons, to study Optics, Acoustics, Mathematics and Metaphysics. Thus furnished he laid the foundation of his fame as an astronomer. Too poor to buy a telescope he made one,

taking as his pattern a small Gregorian which he hired from a broker's shop. He set it up in the garden of his house in New King-street, where in "sweeping the heavens" he discovered the planet Uranus, aided, in the watches of the night, by a devoted brother and sister. Caroline Herschel was one of the most remarkable women ever known in Bath. Poor, patient, persevering, entirely self-educated, but with great intellectual power, she conquered extraordinary scientific difficulties. Other women would have been content with affectionate attendance on the two brothers, reading to them while they were at work or lightening their labours in grinding and polishing their lenses, but she took up the work of study where they left it and carried on their profound observations, discovering no less than eight comets. Her literary work alone would have placed her in the front rank of English women. When at length her elder brother was tempted from Bath to the neighbourhood of Windsor by George III. she removed with him, and enjoyed his fame. Not in idleness, for in the intervals of her own observations she wrote two works on the stars, published by the Royal Society, and a third for which the Astronomical Society awarded their gold medal.

Bath has been called with truth the birth-place of English geology. In other countries, notably Germany and Switzerland, there had been earnest students of the structure of the earth. Werner in one, and Saussure in the other, had learned much relating to its crust, but no one had anticipated the discoveries of William Smith. They were made early in the present century, while he was living in Bath engaged in the construction of the Somerset Coal Canal. One who knew him well—Mr R. C. Taylor, author of Statistics of Coal, says, in a MS. memoir

given to the present writer, "His canal work fixed in his mind facts as to strata generally, gave him the strong evidence of organic remains and enabled him to construct an accurate section of the entire series of the secondary formations." Obtaining eminence, he was honored with a doctor's degree, and did much for the scientific education of his nephew, Professor Philips of Oxford, F.R.S., F.G.S., who wrote his life. His discoveries interested many with whom he had intercourse in the neighbourhood. Amongst them were three clergymen of considerable learning and ability—Joseph Townsend, Rector of Pewsey, Benjamin Richardson, Rector of Farleigh, and John Josias Conybeare, Rector of Batheaston, who was also Professor successively at Oxford of Anglo-Saxon and Poetry. All these not only acknowledged the great value of Dr. Smith's discoveries, but excited much attention by working in conjunction with him, and giving the results of their labours to the world. Smith and Richardson were one day dining with Townsend at his house in Pulteney-street, where he lived many years, when it was proposed that a tabular view should at once be put in writing of the main features of their favourite subject as expounded by Smith. It shewed the different strata according to the succession in descending order, beginning with the chalk and numbered in continuous series down to the coal. The original MS. is now in the possession of the Geological Society of London, with the following memorandum signed "This table of the strata, dictated by myself, by Dr. Smith. is in the hand-writing of the Rev. Benjamin Richardson at the house of the Rev. Joseph Townsend, Pulteney-street, Bath, 1799."

Bath In 1824-5 a great effort was made in Bath on behalf of "Art, Literature, and Science"

by the establishment of "The Institution." Its primary object was the formation of a library of high character, but the promotion of Science engaged from the beginning the earnest efforts of the founders. The first Report of the Committee stated that a Museum had been commenced "for whatever remains of Antiquity the district might supply, and where the students of Natural Science, particularly Geology, might find instruction." In connection with the latter department the name of William Lonsdale ought always to be honoured. He worked unceasingly several years, first in founding the collection by large gifts of his own specimens, and then in accurately arranging them. In 1825 he presented to the Institution 1,150 specimens, including 290 fossils and 69 land and fresh-water shells. While the neat labels are interesting souvenirs of Lonsdale's personality, the names indicate an important stage in Geological Science. The object of the Institution as to antiquities was promoted by the Corporation of Bath, who deposited there the grand Roman remains which had been found in and near the city. To these have been added others of Greek, Indian, Egyptian, and Assyrian origin; also cabinets of coins of various countries and considerable value. For the students of Botany an excellent Herbarium was given by the Rev. Leonard Jenyns, who afterwards took the name of Blomefield, and for those of Mineralogy a collection of minerals by Mr. Frederic Field. One of the rooms is set apart for objects illustrative of the Natural History of Bath and the neighbourhood, and a gallery with adjoining spaces for a large collection of birds and other zoological specimens contained in 1,100 cases. They were presented by Mrs. Colonel Godfrey to the Corporation, and deposited by the aid of Mr. William Bush, at one time Mayor of Bath.

Moore Collection. Valuable as other departments are, the relation of Bath to Science is undoubtedly most prominent in Geology. The discoveries of

Mr. Charles Moore, and the Museum gradually formed by him, became matters of more than local interest. What he did was well described in a paper soon after his death by the Rev. H. H. Winwood, himself an accomplished Geologist, and now the indefatigable honorary curator of the collection. "Day by day," he says, "as I have been engaged in arranging it, my admiration has been excited by the traces of minute, single-handed, masterful work already done, and by the great accumulation of material still to be worked out." Mr. Winwood tells the story of Moore, as a school-boy at Ilminster, finding some nodules, amusing himself by rolling them down a hill, seeing a collision in the descent, and finding as the result a fish inside a stone. The bovish mind asked how it came there, pondered over it till he understood it, was led to study other stones until he became a geologist, and spent all his spare time while in business and through thirty years afterwards in doing more to illustrate the geology of Somerset than any one person before him had done. Mr. Winwood, after describing the various smaller classes, beautifully arranged in cases, proceeds to the chief feature of the collection, the unique assemblage of Upper Lias forms, discoveries in the Triassic and Rhœtic beds, which fix the attention of all visitors to the Museum. "Passing onwards and upwards in the scale of life we come (he says) to those great marine reptilian monsters, the sea lizards of the Liassic times. Too large, most of them to be caged, they sprawl their huge limbs along our walls. There you can see them in the attitude in which death overtook them: "Plesiosauri and Ichthyosauri seem to be basking on the shallow waters of the lagoons of those times, or lumbering along over the mud flats left by the receding waters."

The collection was deposited at the Institu-Other Sciences. tion during Mr. Moore's life and purchased after his death. Facility for its enlargement was generously given by Mr. Handel Cosham, M.P., who put up a gallery around the spacious room. While Geology has been thus promoted, other sciences have received attention. The observatories of Mr. Lawson, Mr. Weston, and Mr. Stothert have aided the study of Astronomy. Papers have been read on this and many other subjects at the meetings of the Field Club and at the Literary and Philosophical Institution. Notes of the weather, especially of the rain-fall, have been regularly recorded during more than forty years. These have been aided since 1854 by a small observatory erected in the Institution Garden, and furnished with suitable instruments. There is also a Microscopical Society, which as long ago as the time of the first meeting of the British Association in Bath gave proof of its efficiency at a beautiful soirée, and is now preparing to do so again. There is a Botanic Garden in the Park, admirably laid out by Mr. Morris, F.L.S., enriched at the beginning with 2,000 specimens collected and catalogued by the late Mr. Broome, F.L.S., and generously presented by his family. There are associations, legal and medical, for the sciences of law and medicine. Both the British Medical Association and the Incorporated Law Society have held interesting meetings in Bath. There is also the School of Science connected with South Kensington, at present numbering 117 pupils. For the last examination conducted by the Science and Art Department, 72 entered, with the result that 54 obtained

prizes and certificates. The school did not, then, fall below the average in any instance; it was decidedly above it in chemistry, electricity, and physiography.

LITERATURE.

Bath has had relations with Literature in three ways: the prominence given to it in works both of history and fiction, the excellence of its public and private libraries, and the eminent authors who have made it their abode or paid it frequent visits.

With regard to books on Bath, Macaulay writes of "the beautiful city which the genius of Anstey and of Smollett, of Frances Burney and Jane Austen has made classic ground." Through more than a century, Bath and its waters, its amusements, its notable characters, and its fashionable society, furnished a constant succession of subjects for readers of fiction. And while the mine worked by Fielding in "Tom Jones," Sheridan in the "School for Scandal," Bulwer in "Paul Clifford," and Dickens in "Pickwick," proved so rich, others were opened in the regions of Science, History, and Archæology. The botany and geology of the district were studied, the local annals were found to have historic importance, and the Roman remains inexhaustible interest.

Some of the Bath libraries are remarkable. The oldest is in the Vestry of the Abbey Church. It was begun by Bishop Lake between 1616 and 1624, when he died. He appears to have wished that the chief church of the city should have a good selection of the standard works of the time. That they were intended principally for the use of the Clergy of the district and other cultivated persons is

evident from the titles of the ponderous folios. An original catalogue, beautifully written on large pages of vellum, contains many such books as Walton's "Polyglott," Poole's "Synopsis," "Legenda Aurea," Stillingfleet's "Origines," and Clarendon's "History of the Rebellion." It also indicates the kind of donors, amongst whom were the Duchess of Monmouth, wife of the unfortunate Duke, who gave Jeremy Taylor's works; William Prynne, by whom and his publisher 30 volumes of his works were given; Sir Lancelot Lake, Sir William Waller, and Bishop Ken. The venerable prelate bequeathed to the library 160 volumes, chiefly Spanish and Portuguese. After his death they were brought from Longleat—where he was long an honoured guest of the Marquis of Bath.

Small as the collection is, and unfortunately Abbey Library. little used, it has yet a certain historical value. It shows the relation of Bath to Literature in the seventeenth century. Alas, that no similar testimony exists as to an earlier period! How invaluable would have been the MSS. belonging to the Bath Monastery if they had been preserved, and what a flood of light might have been thrown by them on the events of a thousand years. Even as late as 1539 Leland saw, amongst the remains of the monastic library, gifts from King Athelstan, translations from the Arabic, poems of the middle ages, Roman classics, and works on various sciences. At one time there was a proposal that the old books now in the vestry of the Abbey, being so little used, should be sold and the proceeds applied to some modern object. Let no such idea ever be revived; take them by all means, with the consent of the authorities, from the dingy room in which they are hidden; place them where they may be sometimes studied, and always admired, as showing how in those days the intellect of the nation was led and who were the leaders;—but at all events preserve the library in its distinctness for the city as one of its historical treasures.

With modern circulating libraries Bath has Circulating been well supplied; better probably sixty or Libraries. seventy years ago than lately. People now subscribe to Mudie and buy-serial publications. But early in the century men of kindred tastes became mutually acquainted in comfortable reading-rooms, and there discussed the topics of the day. In Bath "The Grove" and "The Parade," Mr. Peach remarks, were as famous in their time as "The Pantiles" at Tunbridge Wells were in that of Dr. Johnson. Mr. Monkland gives a pleasant picture in a Paper read at the Bath Literary Club. He remembered well when as a youth he used to go for a book to Bull's Library seeing the little knot who were wont to assemble there: Dr. Harington, in his curule chair, in his full-bottomed wig and three-cornered hat, one leg crossed over the other; Dr. Falconer pacing up and down, portly and erect of form, together with others who were known as "The Intellectuals" of Bath. The two whose names are given were well worthy of being remembered. Dr. Harington, then quite blind, and approaching his ninetieth year, was a versatile and voluminous writer. His musical compositions were above the average, while he shone in paths so different as those of poetry, mechanism, mathematics and theology. Dr. Falconer was also remarkable for considerable learning and industry, a contributor of no less than forty-five works to the literature of Bath. Mrs. Piozzi, the centre here of a large literary circle, was accustomed to say, when she and her friends could not settle a disputed point, "we must ask Falconer."

The library of the Institution is worthy of the city. Large, varied and valuable, it fills several rooms, spacious and handsome, with

charming country views. It was begun in 1825 by means of a liberal portion of a fund of £4,000, raised for founding The Committee were instructed to form a the Institution. library of the highest class, consisting of county histories, good editions of the classics, standard works of reference, and others foremost in the literature of Europe. Suitable additions were made by presents and purchases. Lansdowne gave the Parliamentary and Record publications, the Rev. H. H. Hayes, folios of the Greek Classics, another gentleman a magnificent Virgil, printed on vellum. The Trustees bought at the celebrated Fonthill sale Mr. Beckford's fine set of the French "Transactions." In an adjoining room, the Museum, is a ceiling enriched with paintings from Fonthill. A great object while securing good foreign books was to have as complete a collection as possible of English Histories, and especially of authorities in matters of antiquity and archæology. This would naturally follow from the interest taken by two eminent antiquaries-authors of county histories, Sir R. Colt Hoare and the Rev. Joseph Hunter. Nor were works on Science and Natural History omitted, although these subjects had not the prominence then which they have since acquired. department Mr. Gore gave, in later years, the entire series of the French "Annales des Sciences Naturelles," Mr. Handel Cossham, Sowerby's "Botany," Mr. Broome his "Herbarium" and collection of Botanical works, and the Rev. Leonard Blomefield his fine scientific library, now nearly 2,000 choice volumes, occupying a separate room built for the purpose a noble gift from the life-long friend of Charles Darwin.

The wants of the general reader, somewhat Modern overlooked in former years, have since been Libraries. well met. At one time a Reading Society connected with the Institution made over to it annually the books that had passed through it. At another the object was aided by raising a permanent fund in memory of two Bath gentlemen, benefactors of the Institution, connected with the University of Oxford—the brothers Duncan. The sum of $f_{.500}$ was then invested in order that the proceeds might be used for the library and museum, thus ensuring constant additions of standard works. Other readers in Bath avail themselves of other institutions. The Athenæum. formerly the Mechanics' Institute, has had a useful life of more than fifty years, and is still in full vigour. Bath has also the Law Library, "the Tottenham," chiefly theological, and many well-supported reading societies. Good private collections have been numerous; one of the largest belonged to Mr. Walter Wilson, of Pulteney-street, author of the life of Defoe; one of the most select, including the far-famed Hamilton collection, to Mr. Beckford, of Lansdown-crescent. author of "Vathek." Unfortunately, notwithstanding repeated efforts, there is no Free Library in Bath, a reproach surely that ought to cease.

At various times the city has had circles of literary men and women accustomed to meet for intercourse. Of much local repute in the last century were the parties of Lady Miller, at her villa in Batheaston. Herself an authoress, she brought together those who were sufficiently poetical to contribute offerings to the Muses in an antique vase she had brought from Frascati. Though some of the customs, such as that of crowning successful contributors with wreathes of myrtle, may now excite a

smile, the soirées resembled in some respects the Shakspere clubs of modern times. Later there were symposia in Bath at the houses of eminent physicians and others noted for. their love of letters. Dr. Haygarth and Dr. Percival had stated days for réunions, which call to mind Edinburgh in the time of Scott and Jeffery, and Norwich in that of the Enfields, Taylors, and Martineaus. Afterwards, in 1825, arose a society still flourishing—the Bath Literary and Philosophical Association. The chief object of the founders was evening meetings at the Institution, at which Papers should be read and discussed, with the additional refreshment o tea. One of the earliest Papers was Mr. Hunter's, on "The Connection of Bath with the Literature and Science of England." After some years the Association collapsed, but was, ere long, revived and is now vigorous. In addition to these public gatherings are some of a more quiet and friendly character. The Bath Literary Club, formed in 1852, has monthly meetings in the winter, dinner preceding Papers and discussion. Its chief founder was Mr. J. H. Markland, D.C.L., F.R.S., F.S.A., who was the genial President in the earlier years. The number of ordinary members is 30; honorary members are sometimes added, and visitors are invited to the meetings. The Papers are occasionally printed. Now in its thirty-sixth year, only two original members surviving, the Club still prospers, keeps up its number, and fulfils its useful object—the union of men of kindred tastes and pursuits.

At an early meeting a Paper was read by Mr.

Monkland, on the "Literature and Literati of Bath." It was published and followed by a supplement, both containing some of the information now given. The author included many Literati who were only

known in Bath during occasional though often protracted, visits. Amongst these were Burke, Pope, Goldsmith, Walpole, Smollet, Shenstone, Gibbon, Johnson, Boswell, Wilberforce, Britton, Southey, Wordsworth, Walter Scott, Lady Bulwer Lytton, Mrs. Trollope and Lucy Aikin. In the list of permanent residents in and near Bath, or intimately connected with it, we find John Hales, William Prynne, Bishop Butler, Bishop Warburton, Lord Chesterfield, Henry Fielding, Richard Graves, William Melmoth, Christopher Anstey—all of the former generations. Amongst successive ladies who lived here we have Lady Miller, Madame Piozzi, Madame d'Arblay, Mrs. Macauley, Miss Fielding, Sophia Lee, Harriet Bowdler, Ann Radcliffe, Jane Austen, and Frances Burney; and of medical men, Drs. Guidott, Johnson, Sherwen, Sibthorpe, Harington, Gibbs, Parry, Pring, W. Falconer, and T. Falconer. The miscellaneous list also includes Sheridan, Lyons, Thicknesse, Warner, W. L. Bowles, Thomas Moore, Douce, Malthus, Mangin, Maclaine, Vivian, Sir W. Napier, Horace Twiss, Thomas Cogan, J. E. Reade, T. Haynes Bayley, Bishop Baines, Joseph Hunter, Walter Wilson, W. L. Nichols, William Beckford, Francis Kilvert, Dr. Sweeney, Robert Wallace, J. H. Markland, Prebendary Ford, D. Johnstone, W. S. Landor, and Bishop Thirlwall. These all lived in or near Bath, benefiting in some cases a small, in others a large class of readers. While the few were interested in metaphysical lore, antiquarian study, or theological erudition, the many were charmed by light literature. Pilgrims from distant lands sometimes linger here to see where Squire Allworthy lived, the scene of the School for Scandal, the houses of Tane Austen and Hannah Moore, the garden from which the Herschels "swept the heavens," the stately tomb of

Beckford on Lansdown, and the square where Dickens, Forster, and Thackeray received the hospitality of Landor.

A goodly list might be added of Authors now living, but space and other reasons forbid. Very incomplete, however, would be these pages without honourable mention of one who is distinguished amongst living residents in the relations of Bath to literature. Five decades have passed since Mr. Isaac Pitman, the inventor of a new system of spelling, also devised a system of shorthand, now used largely throughout the world. Some idea of its popularity in Englishspeaking countries may be formed from the fact that of one publication, "The Phonographic Teacher," above 2,000 copies are sold weekly, and of another, the Phonetic Journal, devoted to the propagation of Phonography, 22,000. Far and wide was the inventor's Jubilee celebrated in 1887; London had a great meeting to do him honour, and New York sent its earnest greetings. The city in which he has laboured so long also recognises gratefully what he has done.

Nor should another important agency be forgotten. Bath has been fortunate in its Newspaper Press. Few places are better served in this respect. It has six able weekly journals and three for daily evening circulation. The age of most of them is remarkable: the *Journal* dates from 1742; the *Chronicle* from 1757; the *Herald* from 1792; and the *Gazette* from 1812. The *Bladud* and *Argus* are comparatively modern.

EDUCATION.

The little that is known of this subject in former times deserves to be remembered. Education in Bath was in the hands of the authorities of the important local monastery, who followed the usual rule as to their revenues. One-

third was for the poor, another for the buildings, the remainder for the clergy on condition that, amongst other things, they should instruct the people. For this purpose schools were provided, young ladies being received into nunneries, and even the poorest children cared for by religious organisations.

At the Dissolution all this was changed. The church lands were generally sequestrated and the old provisions annihilated. Happily the deprivation in Bath was not complete. Henry VIII. had spared some of the property, and the Mayor petitioned the Government for one of the thirty schools which Edward VI. proposed to establish. The prayer was granted, the young King in Council approved, and what remained of the old monastic lands was in 1553 made the endowment.* The Charters designated the schools "Free Grammar Schools," or "Chartered Schools of Literature," for "children most apt to learning," indicating that though the benefit of the poor was especially intended, it should not be indiscriminate. others than the indigent shared is evident from the fact that two eminent men of another class were alumni: John Hales, well deserving the title "ever memorable," who became Cambridge Professor of Greek at twenty-one, and William Prynne, M.P. for Bath, Recorder of Bath, the restless politician, the voluminous author, the great constitutional lawyer.

This brings us to a period when the school had done its work for some time in the old city. But there was no other school apparently for the children of those who now flocked to Bath and formed a new population. Nor does it seem that the

times in which Bath awoke from its long sleep were at all favourable to the acquisition of knowledge. In this respect the seventeenth century was greatly inferior to the two immediately preceding. The mental quickening throughout Christendom, caused by the revival of learning, had already begun to droop in England. No spirit like that which distinguished the Court and the country in the reigns of Henry VIII., Edward VI., and Elizabeth could now be seen either at Whitehall or elsewhere. Anstey, Fielding, and Smollet give descriptions, not less faithful than amusing, of the squires and their wives who came to the City of the Springs; and other writers show that even the clergy and justices were content with the literature supplied by the daily post-boy. "A great scholar," says Macaulay, "would he be thought who had Hudibras and the Seven Champions of Christendom lying amongst his fishing-rods and fowlingpieces; while as to the ladies of his household, the most highly-born and bred were unable to write without such faults of spelling as would disgrace a modern charity girl."

Even over King Edward's School there came a dark, heavy cloud. The Trustees of the property shamefully perverted it, acting, in fact as if there were no trust. Mere scanty crumbs fell to the young and the poor for many years, until courts of law and the still stronger legislature stopped the iniquity. Then, under a succession of competent masters, the school revived. A clergyman possessing the advowson of Charlcomb, near Bath, presented it as an addition to the original endowment. In 1754 a new site was purchased, and the present handsome building erected at a cost altogether of between four and five thousand pounds. A century later the three hundredth anniversary of the school was cele-

brated at the Abbey Church and the Guildhall by a goodly assemblage of influential citizens, under the presidency of the Mayor, honoured also by the attendance, from a distance, of eminent masters of other Free Grammar Schools. In addition to Hales and Prynne, many remarkable men have been educated here: notably Mr. Lysons, antiquary; Dr. Falconer, editor of the Oxford Strabo, Dr. Charles Parry, author of the "Parliaments and Councils of England;" Thomas de Quincey, George Monkland, George Norman, the Rev. F. Kilvert, Sir Sidney Smith, Sir Edward Parry. Sir Bartle Frere, and very lately Mr. Herman, the last Senior Wrangler. A new scheme, approved by the Queen in Council in 1872, introduced various important changes; two, at least, of the governing body were to be women, one Governor was to be the chairman of the Royal Literary Institution, another the chairman of the Bath School Board; the living of Charlcombe was to be sold, any surplus of funds above certain defined liabilities was to go to the establishment of a girls' school, and many rules were added insuring greater efficiency in general teaching and greater responsibility to the Charity Commissioners. The present number of scholars is about 120: the reports of the Official Examiners are satisfactory, and though, in consequence of the establishment of other schools, the benefit is now confined chiefly to one class, yet this venerable institution, now in its three hundred and thirty-fifth year, is still doing exceedingly good work.

Educational Progress. It was only by slow degrees that the educational wants of the other classes in Bath were supplied. In 1711 the Rev. Robert Nelson

was the chief founder of the "Blue Coat School," so called from the costume still worn by the children. A prominent

object was Christian instruction in accordance with the doctrine and discipline of the Church of England, so that all Nonconformists have been excluded. In 1722 the funds were sufficient to justify the erection of a suitable building, which, however, was taken down in 1859 to be replaced by the present handsome structure. Provision is made for 100 children, 50 of each sex, belonging to the several parishes of Bath, who are admitted on the recommendation of subscribers. In 1785 the "Weymouth House Schools" were established in connection with the two parishes of the Abbey and St. James, though children from other parishes were admissible. The rules limit this school also to children of members of the Church of England; but in addition to religious instruction and the ordinary subjects, much attention has been paid to industrial training. Originally the number admitted was very large, 160 being selected for the School of Industry. Few institutions have been more successful in enabling boys and girls to fight the battle of life. In 1813 the friends of unsectarian education established the "Bath and Bath-forum School," which is able to boast of similar success. The present number here is 358; while open to children of all denominations, there is no lack of the religious instruction which is common to all, and bears most closely on the practical duties of life. The same class is also cared for largely in numerous schools, parochial and otherwise, the ministers of religion of every name promoting with admirable zeal both Sunday and daily instruction. At the celebration of Her Majesty's Jubilee all united to bring up their young forces, the Sunday scholars alone presenting a beautiful sight of more than 10,000 happy faces.

Private Schools. From the beginning of the present century
Bath has been famous for the excellence of

its private schools. New generations both of residents and visitors succeeded those who were indifferent to education. And during the last half century the constantly increasing desire for higher culture has caused a corresponding supply. It would be easy to mention many instances of ladies eminently successful in training, with the aid of good masters and well-ordered homes, generations of girls whose retrospect of their school-days has been happy. For boys private instruction has been given, in some cases by clergymen receiving a few into their houses, as was the case notably with the Rev. Richard Graves at Claverton,* in others, more numerous, by masters of schools highly qualified for their work and taking a useful part in every educational movement. But with regard to both sexes the prosperity of private schools has undoubtedly suffered from the establishment of others aiming at higher results and yet at less expense, although the stimulus thus given may have been generally advantageous.

The oldest Public Ladies' School is that on Lansdown for the Daughters of Officers of the Army, ably managed by a London committee of high position. Pupils are fortunate in occupying a spacious building, on high ground, in the purest air, with every domestic comfort. Of its educational advantages proofs are given at the public examinations and by the musical skill displayed at the annual meetings. There is also the Girls' High School in Portland-place, established in 1876 by the Council of the Girls' High School Company. This has no restriction as to class; the principle is admission to all classes, and the advantage a thoroughly good education

^{*} See Index, Graves.

for all. The results are known from the full Reports of the Head Mistress at the annual distribution of prizes, embodying as they do the opinions of the Examiners. To the local Committee it has been satisfactory to know that the School is highly appreciated, not only by parents in Bath, but by those at a distance, who place their children with private families in order that they may receive their education here.

Amongst various aids to higher culture mention should be made of the School of Music for Amateur and Professional Students. It was established in 1880, on the principles of the well-known London and Continental Schools of Music. The programme includes every subject necessary to a thorough musical training, vocal and instrumental. The Directress is a lady of practical experience, the musical references include names of the highest standing, and the patrons and patronesses are an ample guarantee for the efficiency of the teaching.

Schools for Boys. The Public Schools for boys come next in order. Precedence might be claimed as to age for the Wesleyan College on Lansdown.

This however is denominational rather than public, being limited to the sons of Wesleyan ministers. It was transferred in the middle of the century for greater scope and purer air, from Kingswood near Bristol, where it was founded by John Wesley. For many years Bath has been one of the centres of the Oxford Middle Class Examination, to which that of Cambridge has been lately added, and the position acquired by this school at the annual distribution of prizes gives it public importance and entitles it to high praise. In the present year it provided the second wrangler, and in 1884 both first and second.

Of stately educational establishments, none in Bath and

few in England can compare with Prior Park. Four hundred feet above the Avon, it commands a landscape full of Italian beauty, inclosing the Roman city of the Sun. close to the ancient Wansdyke, which runs along at the back; and, in the time of its first owner, the scene of hospitality to poets, statesmen, and orators; its traditions are unusually interesting. There are now three large, handsome piles of buildings-the original mansion, and two wings, built for collegiate purposes, to which has been added a beautiful basilica, not yet completed, to be used as a church. The mansion, 150 feet wide, with its grand Corinthian portico of six columns, was built by Ralph Allen, the Bath postmaster, in 1734, and occupied by him till his death.* After passing through various hands it came, in 1829, into those of Bishop Baines, the Catholic Vicar Apostolic of the Western district. By him it was made a college, and he caused the wings to be built, one being dedicated to St. Peter, the other to St. Paul. The establishment held high rank for some years, but eventually collapsed. Again the property was bought for private uses, and then rebought by the Catholics, for whom it has since served the purpose of a smaller college.

Bath College. A more recent cause of educational reputation is the Bath College, established in 1878. It had long been felt that a city with so many advantages of climate, situation, and society, should have a first-class school for boys. The prosperity of the Colleges at Clifton, Cheltenham, and Marlborough, encouraged an effort to form a Company, which was aided by the co-operation of eminent authorities at the Universities. In two respects the promoters were fortunate: the choice of a head master who had won golden opinions for twelve years as second master at Clifton, and

^{*} See p. 81.

the purchase of a property in a beautiful suburban situation. Here, in addition to a good residential house already existing, handsome college buildings were erected. much kind and wise domestic management, and an efficient staff of masters, the results from year to year have been highly satisfactory. In 1880 the number of boys was 97; in 1886, 201; and the distinctions have been remarkably numerous. The more important amounted in six years to thirty-one, including classical exhibitions and scholarships at Balliol, Keble, Oriel, Trinity, Magdalen and University Colleges, Oxford; Christ's, Gonville and Caius, Cambridge. Five boys gained admission to the Royal Marine Artillery at Woolwich, and the Royal Marine Light Infantry, and ten passed directly into Sandhurst, besides many who had lesser distinctions. From these results in so short a time and with comparatively so small a number of boys, it is evident that the Bath College is taking a foremost place amongst the public schools of the country. And those who know it well can testify to the admirable spirit in which it is worked, a spirit that may well be compared with that of Rugby in its best days.

Note.—In concluding this Chapter on Bath in its Relations to Art, Science, Literature and Education, the author wishes to state that his chief object has been to give such information as would be useful to visitors. He is aware that to many residents the facts thus brought together, with others omitted here for want of space, have been made known by various writers, and that there is a growing appreciation of whatever is refining and elevating in the influences of the city. He has also the pleasure of knowing from the observation of fifty years how great has been the enjoyment of those influences by a succession of new residents who in many cases have remained to end their days in their adopted home.

THE ABBEY-CHURCH.

C. W. DYMOND, F.S.A.

THE prominent points in the ecclesiastical history of Bath, and in its fine-art record, have been noted in preceding pages,—with one exception—the architectural story of its Abbey-church, which has been reserved for a separate chapter. The plan of this volume, and the space allotted to our theme, forbidding, for the most part, any notice of minor details,* all that can here be attempted is to pen a rapid sketch of the antecedents, fortunes, and characteristic features of the fabric.

It has been the common fate of buildings, centuries old, to have been subject to many vicissitudes arising either from the ravages of time, from accidents, from the violence of man, or from changes in architectural style. While the memory of some of these is preserved only in the chronicles of the past, others have left enduring marks on the structures themselves, equally legible to those who are skilled in reading them. The Abbey-church of Bath is no exception to this general rule; but, being one of the latest examples of English ecclesiastical architecture, erected before its better traditions had begun to be seriously set aside, perhaps less than most

^{*} The reader who may desire fuller information is referred to the following as the principal authorities:—Wood's "Description of Bath," 2 vols., 2nd ed., 1765; Warner's "History of Bath," 1801; Britton's "Bath Abbey Church," 1825; and especially to the new edition of Britton, continued to the present time, with additional notes, by Mr R. E. M. Peach, and published in 1887:—a work to which the writer wishes to acknowledge his large indebtedness.

other edifices of its kind in England does it exemplify that variety of styles which, in many of its compeers, adds a zest to the studies of the ecclesiologist.

Local church-history up to the year 1087 being involved in much obscurity, later writers differ as to the reading of the scanty and sometimes conflicting records of those early ages which have been handed down to us. It is, however, not disputed that, in 676 A.D., Osric here built a nunnery, the site of which is unknown: but many precedents make it probable that it stood in that part of the town which was devoted to similar uses for several succeeding centuries; and that the present Abbey-church of Bath is its lineal successor. Osric's house soon disappears from our view; and its place seems to have been taken by another establishment, of which we have various notices not easily reconciled. According to a recent inscription on a brass tablet in the Abbey, "the first cathedral* was built on this site by King Offa" in the year 773. Warner quotes a record that in 775 Offa, king of Mercia, founded a college of secular canons upon the ruins of Osric's nunnery: while Prof. Earle, in his "Bath Ancient and Modern," discrediting the founder's claims of that king, says that in 781 "the monastery" of Bath, (which must have been long established, for it is described as "monasterium illud celeberrimum"), being at the time a dependency of that at Worcester, was surrendered to Offa, who desired to appropriate the patronage to himself.

Nothing more is known of it for 150 years; although Warner (on no good authority) says that, in the middle of the ninth century, Bath was devastated by the Danes; and he concludes that the religious house suffered the same fate as the town. Whatever the facts may have been, a partial

^{*} The use of the word "cathedral" here is incorrect.

restoration seems to have been needed and effected before the year 931, when Æthelstan conveyed estates to the convent, (still of secular clergy,) the church of which was dedicated to St. Peter. Within a few years thereafter, grants of property were made by several successive charters to the "monastery" at Bath. In one of these, dated 957, the church is referred to in terms ("mira fabrica") implying magnificence of structure and dignity of standing. This is supported by the fact that it was the place of the coronation of King Eadgar in 973.

About three years before that event "a change had come o'er the spirit of the dream." The seculars had been ejected, and a community of Benedictine monks established in their stead,—Ælfeah or Alphege being the first abbot. In the "Golden Legend" he is credited with building and endowing the Abbey at Bath. This may have been true of everything but the church itself, which we see was, shortly before, in a flourishing condition; and so soon after was fit to be the scene of a royal pageant of the first rank. The "Catalogue of English Bishops," quoted by Warner, gives 1010 as the date of this work. It may have been completed then, but not by Alphege, who was raised to the see of Winchester in 984. It is rather curious that another event of a contrary character (for which the writer can find no authority) has also been attributed to the same date (1010). It is recorded on the afore-mentioned brass tablet, that in that year "the church was destroyed by Sweyn, the Dane." Now Sweyn did not come to Bath until 1013. He made it, for a time, his headquarters; and we know no other than that his occupation of the place was peaceable. Moreover, in the will of Queen Ælfgyfu, dated 1012, she leaves lands to Bath monastery, which must then have been standing. Alphege seems to

have been succeeded by other abbots, one of whom,—Wulfwold,—between 1060 and 1066, gives his lands to "Saint Peter's minster in Bath."

We now reach firmer ground. In 1087 the monastery suffered severely (according to Warner, was "totally burned down") in the insurrection made by Odo and others against William Rufus. In 1000 that king annexed the Abbey of Bath to the bishopric of Wells, then held by John de Villula, who soon set about rebuilding the church and its adjuncts from their foundations on a scale of grandeur commensurate with his ambitious ideas. How far the work had progressed we know not when, in 1137, fifteen years after the death of De Villula, the city was destroyed by fire, together (according to Stow) with St. Peter's Church. But whatever may have been the injury sustained by that building, the very substantial Norman walls, at least, were still serviceable enough to be left standing; for we find that Bishop Robert immediately restored, enlarged and beautified it; associating, in 1178, St. Paul with St. Peter in the tutelage of the Church.

Then followed a period of more than three centuries, memorable, as regards this monument of the piety of our predecessors, chiefly for the neglect of some of its priors, which made restoration necessary in 1324-5; and for the much more grievous ruin which later was allowed to overtake it,—so grievous that nothing short of complete re-edification would meet the case. And here we enter upon the history of the present fabric.

In 1495, Bishop Oliver King was translated from Exeter to this see. There is a pretty story of a dream in 1499 which incited the worthy prelate to rebuild the church,—an enterprise in which he was ably seconded by William Birde, elected prior in the same year. In 1503 Bishop

King died, not having accomplished much, and was succeeded by Adrian de Castello: but the work seems to have been carried on by Birde, who devoted so much of his own means to it that he died in poverty in 1525. By that time the structure had been so far advanced that the choir was vaulted, and the *façade* probably completed.

When this zealous builder rested from his labors, they were continued by his successor in office, Prior William Hollway, who made strenuous efforts to complete that which had been so well begun. But the sun of monastic prosperity had long been sinking to its setting; and a radical change was at hand. In 1536 the word went forth that the monasteries were to be suppressed; and, three years later, the Abbey of Bath was surrendered to the king.

Very soon thereafter the church was offered to the city for a nominal sum. The offer being declined, all the glass, iron, bells and lead were sold, and, in 1542, some of the monastic estates were granted to one Humphrey Colles, who re-sold the site and buildings of the Abbey to Matthew Colthurst, whose son Edmund, in 1560, presented to the city "the carcass of St. Peter's Church," with some of the adjoining land, for a parish-church and church-yard.

The structure remained dilapidated and dismantled for twelve years, until a military officer, Peter Chapman, began to repair it in or about the year 1572.* Little, however, was done but to roof the tower and a portion of the eastern end, and to glaze the clerestory-windows of the choir. Twenty-five years later the restoration was vigorously prosecuted by William, Lord Burleigh, and Thomas Bellot, by whose efforts the church was fitted for divine service. But the greater part of the nave and its aisles was still unroofed,

the vestry unbuilt, and much beside remained to be accomplished. These defects were remedied by Bishop Montague between 1609 and 1616; and so the work which had been begun 116 years before was at last completed.

But not before the spoiler in a new form had appeared upon the scene,-the leaseholder, with his "houses, dens, shops, and taverns" standing on lands which he held from the city, abutting on and disfiguring the church. These parasites, which were allowed to encumber the site for a very long period, so obstructed the ways that, for nearly a century, the north aisle was used as a thoroughfare, until Marshal Wade opened a public passage through the block of houses on that side. Between 1823 and 1834, as the leases fell in, the whole site was cleared; and, simultaneously, the Corporation expended a large sum in improving the church under the direction of the late Mr. Manners, city architect. It was then that flying buttresses were attached to the nave; the roofs of the choir and transepts were reconstructed, and the whole covered with lead; an enriched parapet was carried around the building; the clock removed from the tower to the north transept; and the old organ-loft replaced by a screen designed by Mr. Blore. Many improvements were also made in the pewing; and the tablets which disfigured the piers were transferred to the walls. that was then done was good, and fit to remain; but there was not a little which, with many of the works effected in and immediately before the time of Bishop Montague, being either incongruous with the earlier portions, or otherwise bad, was marked for condemnation by the generation who witnessed the "Gothic revival."

The Rev. Charles Kemble being appointed to the rectory of Bath in 1859, soon gave the signal for, and was the chief

instrument in effecting, that great work of genuine restoration by which, in 1874, after ten years' labors, and a very large expenditure, all deformities were swept away, and the citizens of Bath found themselves in possession of a church which they could justly regard with feelings of pride.

It must suffice to name the principal of these acts of restoration and completion. For sanitary and other reasons, the burial-vaults were partially cleared and concreted over. The ceilings which covered the nave, its aisles, and the south transept were replaced by fan-traceried stone-groining, in harmony with that of the choir and its aisles. Perforated machicolated parapets were substituted for plain copings, and new pinnacles crowned the turrets. The cumbrous galleries, and bishop's throne were removed, and the church re-seated; the organ was much enlarged, and removed to the transept; an old screen, which stood under it in its former position at the east end of the nave was transferred to the west end; and an extensive re-arrangement of cenotaphs was effected. The beautiful chantry of Prior Birde, which had been sorely disfigured, was restored; the sanctuary tiled, and furnished with altar-rails; a new stone reredos and carved screen-work of oak were erected; a new carved oak pulpit replaced the old one; a brass lectern was presented, and a stone memorial-font added to the two already in the church. Coloured windows were inserted, and heating apparatus fixed.

The floor of the present church is about six feet higher than that of its predecessor, the Norman church of De Villula, which appears to have been planned on a much larger scale. In 1864 the lower portions of three of its massive piers were found *in situ*. Two of these are "under the second and third piers of the nave-arcading from the west, partly

projecting under the north aisle"; while the third is beneath the eastern arch in the north aisle of the choir. The indications afforded by these piers are that the existing building covers little more ground than that occupied by the nave and transepts of the earlier one. The only other remains of the latter known to exist are portions of coupled shafts which have been let into the bases of two of the buttresses at the east end of the choir, and a jamb and arch-moulding built around the window and door at the east end of the southern aisle. These were found in the recent restorations; and all that was then done was to lay them open to view.

It remains but to glance at the Abbey as a work of architectural art. Whether viewed from without or from within, it will be found to exhibit both the merits and the defects of the style of the period in which it was erected. The leading idea of the designer appears to have been to produce an impression of dignified elevation, and to preserve a consistent rectangular uniformity of treatment,-a result to which the "late pointed" easily lent itself. If, on a general view of the exterior, little is found to arouse enthusiasm; there is at least enough to leave a sense of satisfaction, not unmingled with pleasure. Though we may look in vain for touches of artistic genius in any of the details, we shall feel that there is a certain nobility of conception in the tout ensemble. a pity that the "weather-painting," which has so largely stained in parts the surface of the stone-work, gives to the walls a gloomy aspect which is very unattractive. But the attention of the visitor will naturally be riveted on the west front; and he will at once be struck with the ingenuity of the idea (which has been very happily treated) of working the subject of the bishop's dream into an architectural ornament. Admirable in conception, though less in execution, is that of the angelic choir adoring the Divine Majesty, represented as an old man seated in solitary state under a high canopy in the midst of the heaven to which the ladders lead. Statues of the twelve apostles, in three tiers, stand against the cants of the turrets on either side of the ladders. It is not certain what is meant by the human figures ornamenting the centre mullions of the aisle-windows. The one on the north side, clad in flowing robes, appears to be holding an open deed, with appended seals; the other seems to have in his hand a pouch or money-bag. The apostolic patrons of the church are represented by the two large statues flanking the main entrance: under each of these was a Latin inscription, now illegible. "The folding doors are a curious example of the decorative carving of the time of Iames I. The upper part displays an heraldic mantle, surmounted by a knight's helmet and a griffin's head,—the crest of the Montagues: on the mantle, two shields of arms." the spandrels between the architraves of this doorway are carved labels with various emblems of the Passion,-wounded hearts, crowns of thorns, pierced feet and hands, etc. It is thought that the unoccupied niche above originally contained, or was intended to contain, a statue of Henry VII., whose arms (crowned) and supporters are sculptured at the base. Heraldic and other emblems, with inscriptions, rather restlessly dotted about, label-wise, form the majority of the minor enrichments of this front. "On each buttress, near the extremities of the aisles, is a piece of sculpture typifying the name and the dream of Bishop Oliver King-namely, the olive springing through a royal crown, and surmounted by Beneath are two mutilated figures of animals, under each of which is an expanded roll," with traces of the text from the parable of the trees choosing a king. Over the windows of the aisles may be read the words, Homus mea Homus or ationis.

We will enter, and furnish our short survey with a glance at the interior which, as now restored, is more than worthy of its external framing. Observe the loftiness of nave and choir, flooded with light through large windows in the clerestory: feast the eyes on the rich beauty of the stone-groining set with escutcheons of the great, of patrons and benefactors,that of the choir and its aisles of the time of Bishop King, and of the best type of design; that of the western part modern, but after the pattern of the old: note particularly the noble square-headed east window, filled with coloured glass illustrating the events of the gospel-story; the equally fine "Jesse" window in the south transept; and the many other excellent examples of this branch of decorative art, mostly of a memorial character.* Then visit the chantrychapel of Prior Birde, a chaste and elegant little structure in the southern arcade of the choir, and note the delicacy of the design and workmanship of the sculpture (most of it restored after the original) in which, among "pomegranates, mapleleaves, thistles, and conventional foliage and figures," may be seen, many times repeated, the rebus of the builder's name, a W with the figure of a bird. The chapel is beautifully roofed with fan-traceried groining, except at the east end where this is met by a ribbed coving, or demi-vault, in the midst of which are set the prior's insignia and escutcheon.

^{*} All these are new: but old glass, formerly in the east window, has been re-inserted, billet-wise, in two of the clerestory windows on the north side of the choir. Other old glass may be seen in the escutcheons in most of the clerestory windows: and some fragments are preserved in the Birde chapel.

THE BATHS, ANCIENT AND MODERN.

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THE present Hot Mineral Baths occupy only a portion of the site of the ancient establishments. A history of these Baths would extend certainly over a period of eighteen centuries, and possibly more; for fragments have been discovered, suggesting, though not demonstrating, the theory that the foundations of the Baths may have been laid even prior to the Roman occupation of Britain.

The position of the Springs has been indicated by geologists as being somewhat central in the valley of the Avon, but on the south side of an upheaval of strata that diverted the river from a westerly to a southerly direction. Previous to the erection of the Baths, the hot springs must have risen from the foot of a slight cliff, and flowed towards the river over a considerable tract of land, known in mediæval times as the "Ham Gardens," and subject then, as at the present time, to frequent floods.

The Baths are supplied by three apparently separate springs, which vary in heat only three degrees, and possess identically the same properties. Their highest temperature is 120°, but they scarcely rise to the surface at that heat. The King's Bath Spring is the largest, and, when measured a few years since, yielded 167 gallons a minute; but this supply has been considerably increased by stopping the leaks which existed amongst the ancient ruins, and through

which the water wasted away. Accurate measurements of the spring have not been practicable, but it is believed that the yield at the present time is more than 300 gallons a minute. One-hundred-and-forty yards almost directly west of this spring is another, known as the Hot Spring, of considerably less volume than the King's Bath Spring. A few yards to the north of the Hot Spring is the smallest and coolest of the three springs, which is known as the Cross Bath Spring. It is generally supposed that there has been no abatement of heat in these springs, but no accurate observations having been made in the past, this supposition cannot be verified. As to volume of water, discoveries made in the recent excavations justify the assumption that the King's Bath Spring is of the same capacity as it was in Roman times. The Hot Spring has been stated in old guide-books to have first made its appearance four or five centuries ago; but on this statement little or no reliance can be placed. The Cross Bath Spring has undoubtedly diminished, but this is accounted for by its diversion amongst the foundations of contiguous buildings on their erection early in the eighteenth century. It would cost but little to again secure the spring within the ancient Roman well and prevent the water being wasted before coming to the surface.

The Roman Baths.

The earliest Baths of which there is any distinct evidence are Roman, and were founded either by Vespasian when he was in Britain, or as late as during the reign of his son Titus. They were in great part erected within an excavated area, to admit of the springs filling them by gravitation; but at the same time the level of the excavated area was evidently above the surface of the ground on the southern front.

The design of the Baths, as revealed by recent discoveries, was well considered and planned. The relative proportions of area and solid, as well as the construction, prove most incontestably that, though in minor details the skill of the workmen may have been defective, the architect was a complete master of his art; and in this respect the ruins of our Roman Baths rank as high as, if not higher than any, other of the civil buildings of the Romans in Britain. The Baths are apparently of two, if not three, periods, and suggest (a) a smaller system at the commencement, then (b) an enlarged plan, and lastly (c) a contracted plan. The earlier system appears to have comprised all that the second embraced, but upon a smaller scale, while the third system shows signs of retrenchment consequent on a more limited occupation, and also affords evidence that the structure was not maintained in thorough repair. Alterations were made in the building from time to time until the baths, when they fell into disuse, were walled up or altogether abandoned.

The Baths were divided into two buildings by the Roman street that crossed the city from north to south, a hot spring being the centre of each establishment.

The great well of the larger spring (King's Bath Spring) was surrounded by a wall of massive stones, forming an unequal octagonal figure, 50 ft. long and 40 broad; while the smaller spring (Cross Bath Spring) was of about 50 ft. in diameter.* The octagonal well (complete as to form, if not in height) which is situated beneath the mediæval King's Bath, has recently been completely excavated, and is now utilised as a tank for hot water; while the circular Cross Bath Spring is much mutilated, but, so far as it is perfect,

^{*} The southern margin of the Cross Bath for about 16ft. in length is built on the wall of the well.

this also is used as a tank. Both springs are unfortunately hidden from the ordinary visitor.

The excavations hitherto made have not been of sufficient extent to reach the external walls of the Roman Baths; but if the south wall of the Abbey Church stands, as it probably does, on the north wall of the Baths; and if the tesselated pavement preserved in the United Hospital was the floor of one of the rooms in the western Baths; then these buildings could not have averaged less than from 300 to 350 ft. broad with a probable length of 900 ft. Assuming these calculations to be correct, the area of the Roman Baths—omitting the auxiliary buildings—must have occupied from 6 to 7 acres,* and included all the requirements to be found in the grand Baths of ancient Rome, with pleasure ground covering the whole area between the Baths and the river to the south

Eastern Wing. Five grand Baths have already been excavated in what I must call, for want of a better name, the eastern establishment, the first of these in 1755, and the remainder within the last five years. The area occupied by the water of the bath was in the centre of each room or hall; and, for the sake of brevity, it will be sufficient to give the dimensions of the rooms or halls, rather than of the area covered by the actual water surface.

The hall of the bath discovered in 1755 was 43 ft. by 34. Shortly after its discovery it was again covered with, if not destroyed by, buildings—which, however, it is now proposed to remove, so that the old Roman remains, however fragmentary, may be again exposed to view.

The hall of the second or great bath (rectangular) is

^{*} This is assuming that the buildings were, on plan, simply a parallelogram, which is hardly probable.

110 ft. 4½ in. by 68 ft. 5 in., with three recesses or exedrae on each of the longer sides; the central recess being rectangular, and the others semi-circular.

The hall of the third bath (circular)—if we include the arcades at each end of the hall—occupies an area of 68 ft. by 35.

The water surface of the fourth bath—one end of which has a shape that may be taken for a semi-circle, while the other end forms the segment of a circle—stands within an area of 33 ft. 4 in. long by 17 ft. 10 in. wide.

The fifth bath (rectangular) stands within a hall 33 ft. long by 20 ft. wide. The second and third baths were arcaded, while the others were enclosed within pilastered walls; but if the arcades at either end of the first bath were open, that might be called arcaded also. The height of the apartments, which were all vaulted, measuring from the Schola surrounding the bath, must have varied from 35 to 44 ft. In addition to these larger baths, several smaller ones have been discovered, and there are indications of still more.

Connected with the Baths was a complete system of what are now known as Turkish Baths, both in the east and west wings of the establishment. The east wing, discovered and opened out in 1755, discloses five apartments; but there are at least three, if not six, more. All these were floored on pilae, and some had also flues carried up as a coating to the walls. On the north side was a praefurnium, or stove, by which all the apartments were heated; and this praefurnium was in all probability supplemented by another on the south side. The hot chambers discovered on the west are by no means so extensive or so symmetrically planned as those just

mentioned; and the hypocaust, partially complete in the rectangular chamber, has disappeared altogether from the circular room, which was the hottest. There were two *praefurnia* also, but in the excavations made at the beginning of this century—and perhaps previously—so much was removed that it is difficult to complete the plan.

The western wing, which was supplied with Western Wing. water from the spring now called the Cross Bath, has unfortunately but little history. The discovery of the well has alone been noted, and that but recently; but its Roman buildings to the east were cut through without care, on the formation of Bath-street in 1793, and no record was kept. The Hospital of St. John on the west was no doubt originally built from Roman ruins, if indeed the buildings themselves did not form a portion of the hospital at the time of its first foundation, which is generally supposed to have taken place under the auspices of Bishop Reginald, who was consecrated in 1174, or of his predecessor Robert; but a far earlier date may be safely assigned. The area occupied by the buildings of the Charity may be said, roughly speaking, to be the area of the former Baths. A fragment of tesselated pavement described by the Rev. Preb. Scarth, was, doubtless, as already mentioned, a floor of one of the chambers of the western Baths.

After the Romans abandoned this country, A.D. 410, the baths still continued to be used, although the buildings were not maintained in perfect repair. The pavements still existing are, in places, so uneven from wear that there is a difficulty in walking on them, and the tesserae, where made good, are replaced by an inferior material. After the battle of Deorham the Baths were abandoned, and the city became a waste.

On the rebuilding of the city in the eighth century under its new name *Bathancastra*, the Baths must have been standing, although in so great ruin that the Saxon street over the Avon, by the bridge, (the Roman piers of which the writer has seen,) instead of running directly north on the line of the Roman street, was diverted eastward and across their ruins, skirting in doing so the spring of the King's Bath. Beneath this Saxon street the Baths and corridors still exist, and, as far as the plan and arrangements are concerned, the fragments are much more complete than where buildings have been erected and re-erected during the last eleven hundred years.

The only description extant of the condition of the Baths during this period is contained in the Saxon poem of The Ruin in the "Exeter Book," to which attention was first called by the Rev. Professor Earle in 1871,* and more recently by Mr. Charles Elton, Q.C., M.P., in his "Origins of English History." "There stood arcades of stone; the stream hotly issued, with eddies widening up to the wall encircling all the bright bosomed pool; there the baths were * * * hot with inward heat; so they caused to flow (into a sea of) stone the hot stream. High was the roof of gold * * * And the court is dreary. And the crowned roof lies low in the shadow of the purple arch."† This, though possibly written in the seventh century, may, allowing for their then more ruinous condition, be taken to describe the state of the Baths as late as the tenth century. "The eddies widening up to the encircling wall" doubtless refer to the springs themselves forming a sheet of water. The ruins, standing more or less in fragments, fell in, and in

^{*} See p. 29.

⁺ This poem is assigned to Cynwulf by some writers.

their fall choked the conduits and blocked up the baths, preserving by so doing the valuable coating of lead that would otherwise have disappeared. The actual springs of both the eastern and western establishments were themselves the baths, if baths were then in request. The first spring appears to have been distinctly outside the boundary of the ecclesiastical buildings, the Cathedral and the monastic grounds being to the east of it, whilst the other springs were enclosed within the Saxon Hospital for the sick and poor, which was replaced by the hospitals of Bishops Reginald and Robert. The boundaries of these springs within the Roman walls have not been correctly ascertained, but the dimensions of the enclosure of the King's Bath (the mediæval name of the eastern spring) between the ancient walls are approximately 63 feet by 33. This was doubtless the public bath of the city, and was de facto Crown property as late as the seventeenth century; and was held by the municipality, the monastery, or the Bishop, on the payment of a small rent and with the obligation of keeping the surrounding walls and steps in repair. The main buildings of the ancient Baths became the quarry, out of which the mediaeval walls of the city as well as the monastic buildings were constructed, as a few (though up to the present time undoubtedly only a few) Roman stones have been observed in their foundations.

It may be pointed out that almost the whole of the domestic buildings of the monastery of King Osric were built within the ruins of the eastern wing of the Baths, and eastward of the spring.

At a future time it may be possible to fill up a considerable void in the history of the Baths, from the Norman invasion to the reign of Oueen Elizabeth, but having now rather to deal with the

subject from a structural point of view, it will be sufficient to note that during the mediæval period the King's Bath was but little altered. The boundaries of this spring were maintained as of old, though slightly reduced; but the walls surrounding the other springs were much changed, and their extent was unsymmetrically reduced by the encroachment of the buildings of the hospital. In 1235 the Crown sent Commissioners to report on the condition of the King's Bath. They found that it was falling into decay and needed the sum of £13 11s. (equivalent to more than £300 at the present time) for its repair. It is clear that so large a sum as this could not have been required without very considerable work having to be done; and it is therefore to this date that we must ascribe the reduction in the size of the King's Bath from its original dimensions. The Roman wall to the south still continues to be the boundary, but new walls with niches were erected within the ancient enclosure on the three other sides, making the dimensions to be 57ft. by 40ft. 8in. In A.D. 1530, Leland visited Bath, and his description of the Baths, slightly abbreviated, is as follows:-"There be 2 springes of Whote Wather in the West south West Part of the Towne, Whereof the bigger is caullid the Crosse Bath, (previously spoken of as one of the springs of the western establishment) bycause it hath a Cross erectid in the midle of it having 11, or 12, Arches of Stone in the sides for men to stonde under yn tyme of Reyne. The Hote Bathe is lesse in Cumpace withyn the Waulle then the other, having but 7 Arches vn the waulle. The Kinges Bathe is very faire and large and is compassid with a high Stone Waulle. The Brimmes hath a litle walle cumpassing them, and in this Waul be a 32 Arches for Men and Women to stand seperately yn. Ther goith a sluse out of this Bath, and servid in Tymes

past with Water derivid out of 2 Places in Bath Priorie usid for Bathes, els voide." One of these "Places" was destroyed on the discovery of the Roman Baths in 1755, and the other was unfortunately destroyed but recently during alterations effected in some water-courses, under superintendence over which the writer had no control. During the mediæval period there were no means of emptying the baths (or rather the reservoir of the springs), unless the Cross Bath was still connected with the Roman Aqueducts, the over-flow running off into the river.

Post-Mediæval Baths to 1750. In A.D. 1557 Dr. Turner in his book did not describe the Baths but confined his remarks to their medical use, and advocated

every bath having a "a covering above it"; and he also advised the erection of chambers, separately "appointed" for men and women, in an upper story, into which water should be pumped. No effectual attempt was made to carry out this recommendation for a space of two hundred years. Dr. Turner advocated the construction of a Horse Bath, to be supplied with the waste hot water, a suggestion which was adopted within a few years; but this bath has unfortunately been filled in long since. Dr. Turner also advised that some means should be provided for emptying the baths every day "at eight of ye clock afternoune, yt agaynst ye morning they might be full of fresh holesome water!;" and this recommendation was carried out.

A map of Bath, dated 1610, gives views of all the baths and shows the "Newe Bath" (adjoining the King's Bath), added about the year 1575, and removed, three years since, to open out the circular Roman Bath which was beneath it; and also the small Leper's Bath, which had been added, in a similar way to the "hotte Bath." T. Johnston, writing

in 1634, gives copies of these views, although sixteen years previously the King's Bath had been surrounded by a hand-some balustrade (a portion of which still exists) at the cost of Sir Francis Stonor, an ancestor of the present Lord Camoys.

Dr. Jones, in 1572, advocated drinking the Mineral Water, and a pump appears to have been erected, but its position has not been traced. A drawing of the King's Bath, executed by J. Johnson in the year 1675, gives a very good idea of the King's Bath and the adjoining buildings; but there is no view of a similar date extant of the other Baths, although the Cross Bath at this time was the fashionable Bath. This Bath was much smaller than the King's Bath, but enjoyed a gallery, presented by Robert Lord Brook, for musicians, who performed daily.

Winter bathing was not at this time (as it was afterwards) recommended to patients, and the inconvenience of the only baths then existing being entirely uncovered was often commented upon, without a remedy being effected. Earl of Marlborough offered to roof over the Cross Bath, if the Bath Corporation would roof in the King's Bath; but his offer met with no response. The King's Bath and the Hot Bath are still uncovered, but the Cross Bath (the charge for which has been reduced to one penny) has been roofed this year, 1888. The King's and Queen's Baths from 1625 to 1750 appear to have undergone little alteration, so that the picture by Johnson gives a correct view of their appearance during these 125 years. Lodging houses were erected on a part of three sides, having direct access to the Baths, so that bathers, although bathing in the open bath, might readily get under cover. In addition to this, "slips" (little rooms) were attached to the baths at four of the angles;

and in these slips bathers might deposit their clothes. Sedan chairs were in great request, enabling bathers to undress and dress at their own lodgings in any part of the town, which was then confined within its mediæval walls Partially surrounding the baths, and open to the public, were terraces, from which a view could be obtained of the bathers; ladies and gentlemen, wearing bathing dresses, bathed together. In the centre of the Bath an octagonal building, known as the Cross, in height about 40 ft. (affording a slight protection to the bathers) was erected in 1664, and removed in 1789. Inserted in the walls of the bath were, and are still, a number of brass rings, given as thankofferings for benefits received by bathers, with the names of the donors and dates ranging from 1639 to 1754. A rough sort of douche was practised by "bucketing" a bather, and by what is now called a dry douche (an operation then in vogue on the Continent). Adjoining the Bath was a small building, in which was a pump used for drinking as well as for douching. There was at that time no other Pump Room, although on the north side of the Bath there was a small Assembly Room, which was displaced in 1705 for the erection of the first Pump Room (in which a band played). This room was enlarged on two occasions prior to its removal for the erection of the present Grand Pump Room*

The Baths ry50 to 1880.

In 1755 the removal of the Abbey House disclosed a portion of the Roman Baths and the existence of what was supposed to be a distinct hot spring, since proved to be a leakage from the King's Bath.

This discovery led to the building by the Duke of Kingston of a small establishment of Private Baths,

^{* &}quot;The Bathes of Bathes Ayde," by Charles E. Davis. 1883.

very carefully planned, with domed vaulting, but only three in number. These Baths were slightly enlarged in subsequent years, but on the purchase by the Bath Corporation of the Hot Spring in 1878 they ceased to be Hot Mineral Baths. These are now known as the Turkish Baths, and are held on lease of the Corporation by Mr. Sheppy. The erection of these Baths was followed by the building of the Royal Private Baths in 1778, containing four private baths communicating with a large central bath, called the Hot Bath, with eight dressing-rooms, four vestibules, douche rooms, etc. A large Swimming bath, with dressing-rooms, was added in 1859. The Cross Bath was in great part re-erected in 1797 with a small pump-room, douche-rooms, and private baths, since removed.

In 1788 the new King's and Queen's Baths were commenced, and these were followed by the erection of the present Grand Pump Room. These buildings, notwithstanding a large purchase of contiguous property, entailed considerable encroachments on the north and west sides of the King's Bath, and involved the removal altogether of the ancient "slips" and the substitution of long corridors for Sedan-chairs, and the addition of some small auxiliary baths without dressing-rooms, with the exception of perhaps two or three apartments communicating with the public baths; the Queen's Bath being reserved for ladies. In a storey above this was a central vestibule with six dressing-rooms, four of these being attached to four baths, each containing 800 gallons of water; the other two communicating with two douche-rooms with a small closet for a "spray." About thirty years ago these Baths were improved, and an entrance was opened from the Pump Room; the basement was enlarged with additional corridors, and a vapour-room was also added.

In 1870 the Baths adjoining the Grand Pump Room Hotel were built, comprising large private baths, Reclining-baths, Douches, and a Tepid Swimming-bath. The latter has recently been enlarged to 80ft. in length of water with seventeen dressing-rooms, and there is also a cooling room for ladies, and one for gentlemen, for whom a smoking-room is also provided.

The Baths from 1880 to the present time.

Strictly speaking, however, these last additions ought properly to be included in this section, as they were built under the direction of the writer in 1885. The King's and Queen's

Baths just completed have involved an expenditure exceeding $f_{,20,000}$. These Baths now incorporate all the portions of the Roman Baths hitherto discovered which are available, whilst in erecting the new work no part of the ancient buildings has been destroyed or hidden. Taking into consideration the accommodation provided by the several establishments, there is sufficient provision for bathing simultaneously 120 bathers. The rooms and baths are appointed in the best manner, every comfort is afforded, all the appliances are complete, from the simple bath to the most delicate administration of the Mineral Water. Vapour as given off from the springs at their source, is collected in a volume for a complete bath, or so delivered that it can be applied locally or for inhalation. Water or vapour can also, if thought fit, be combined with electricity. The bather can be accommodated with a chamber, warmed either with dry heat to 150°, or moist heat to about 114°, and even higher if required. Appliances exist for "spray," "sitz," "needle," or "lave," with hot plates when prescribed by the medical adviser, and all the previously described systems can be given with imported natural waters from the Continent or with the waters of our own country. The Aix-les-Bains douche and massage, the Turkish system, but somewhat modified, the Russian, the Marien-bad, the Vichy, the Mont Dore in Auvergne System, as also those which local Medical men consider best adapted to the Hot Mineral Springs of Bath, are here available. Each establishment is provided with a Cooling room, supplied with the London and local papers. The writer is preparing for publication plans of the various baths, and a description of each room and bath, in order that no one seeking the waters shall lack full information, it being impossible within the limits of these pages to give more than a general idea.

The King's and Queen's Baths also have large private baths, reclining, sitz, needle baths, the spray, lave, etc., attached to them; also douche baths, local, as at Aix-les-Bains, lumbago baths, vapour, and local vapour, as previously mentioned; atomised (or pulverised) water, and vapour in an inhalation room, pulverised douche, and douche with vapour, from delicate instruments, for diseases of the throat, nose, eye, &c., whilst provision is made for the application of water, or vapour, in a variety of ways. The Royal Baths have all the appliances previously described, as also have the New Baths in connection with the Grand Pump Room Hotel, except that the more delicate treatment is administered in the Queen's Baths only.

In all the establishments are crane chairs for lowering the helpless invalid into the bath, whilst the corridors are sufficiently wide to admit wheel-chairs or Sedan. The Grand Pump Room is in connection with the King's Bath. Here the hot mineral water is delivered at a heat of 114° for drinkers by a continuous fountain of water direct from the spring.

During the last year the number of bathers was 86,551, and the receipts from all sources amounted to £5,707. The Corporation of Bath, who are the owners of all the springs and baths, spare no expense to make the latter an attraction to the visitor and the means of restoring health to the invalid who is advised to seek relief from the waters, which, it should be remembered, have a record of having continuously flowed during nearly nineteen centuries, and in that time have been resorted to by millions seeking pleasure or a cure for ailments that medical science would otherwise have failed to relieve.

The well-nigh uninterrupted continuance of the Baths on one site is recorded in an inscription on the south wall of the King's Bath. To this wall the Roman and the Saxon, and succeeding generations to the present time, have in turn contributed, so that the structure represents an unbroken history from Vespasian and Edgar, Henry III. and Charles I., to the present day.

The Inscription is as follows:

ON JULY 23RD, 1886,

UNDER THE MAYORALTY OF ANTHONY HAMMOND,

THE HOT MINERAL BATHS COMMITTEE, (J. J. WILKINSON, CHAIRMAN,)

HAVE LAID ON ROMAN MASONRY SEVENTEEN HUNDRED YEARS OLD

THE CORNER STONE OF NEW BATHS,

THUS CONNECTING IN WORK AND OBJECT

THE MODERN WITH THE ANCIENT WORLD.

CHAS. E. DAVIS, F.S.A., Architect.

THE BATH THERMAL WATERS; AND BATH AS A HEALTH RESORT.

JOHN KENT SPENDER, M.D. Lond.,

Physician to the Royal Mineral Water Hospital, Bath.

THE Science of Balneology, as it is termed, has been built upon the different properties and temperature of water. Pure water is practically unknown; as it exists in Nature it has always saline or gaseous material, generally both. These are the characters of what is termed spring water, fitting it for the various purposes of domestic economy. A water ceases to be potable, and is unfit for domestic use, when it contains matter alien to the necessities of the healthy body. It then becomes a medicine. No precise line can be drawn; but when a water is so far mineralized as to be decidedly medicinal, it is the duty of medical men to find out what can be done with it.

But a medical man may perfectly know the physiology of the whole body, and perfectly know the chemistry of a mineral water, and yet not understand how to apply that mineral water to any healing purpose. The one faculty does not teach or imply the other. Medicated Waters are the workmanship of Nature, and we learn their virtues solely by their effects. To discuss what they ought to do is a purely scholastic exercise. Thermal medicine is a matter of appreciation and tact. A mineral water has no other value than that which a skilful physician knows how to elicit from it. Even the illustrious Boyle, with his analytic mind, confessed that the "surest way of knowing them" [mineral waters] is

to study patiently their good and bad effects. In judging the medical-action of a spa, therefore, it is wrong merely to take into account the principal constituents of the Water, as if it were a question of pure chemistry. Every mineral water is a complex medicine, having a peculiar mixture and a specific temperature. Put the same materials together in a laboratory, according to identical weight and measure, and we do not at all get the same vital product. Nature will not be mimicked so easily. "There are natural compositions contrived for the benefit of mankind," wrote Dr. Oliver (1719), "which exceed all the compounds man can invent." Thus we approach with unbiassed minds those benign pools which flow "without tides" at our very feet and have a genealogy beyond all historic record. Legend and romance have embellished what might have been only a bit of dull science. Without metaphor, this hot fluid is a message from the very deeps, telling us of the structure of things beyond all hypothesis and all knowledge. What has been flowing for so many ages will go on ad secula; and we realise the ancient epigram that the least stable phe. nomena of Nature are yet sometimes the most permanent.*

The Bath Thermal Water is a clear and almost colourless fluid. When freshly drawn, it may show a momentary sparkle; in bulk (as seen in the open baths) its tint varies somewhat with atmospheric conditions, appearing sometimes light sea-green, at other times pale blue. There is no odour

^{*} Charlemagne found an inscription on the spot where he afterwards built his palace at Aachen. The inscription contained the name *Granus*, which he supposed was that of a Roman Emperor, and that induced him to build his own palace there. Granus was really the local name of a Celtic deity—the Sun. Aix-la-Chapelle or Aachen is called in Latin Aque Grani (Waters of Granus), exactly equivalent to the Roman name of Bath (Aquæ Solis). For this note I am indebted to my learned friend and kinsman, the Rev. T. L. Kingsbury, Canon of Sarum.

from a glass of the fresh water; any pungency from a large body of the water is never unpleasant or sulphurous. Water hot from the pump gives a chalybeate impression on the tongue, and a faintly saline taste. On standing in the open air for some hours the water becomes somewhat turbid and of a whey colour after the "ochre" is precipitated, but no other substance is deposited in any ascertainable quantity. Gas rises through the water in large clusters of bubbles; it was discovered by Dr. Priestley (1755) to consist of only $\frac{1}{20}$ of its bulk of carbonic acid gas, and the remainder is almost entirely nitrogen.*

The temperature of the Bath Waters is their most important phenomenon. Telluric heat is a subject always of intense interest. Writers differ slightly as to the exact heat of our own springs; but it is quoted by a recent authority as follows:—"The hot bath is 120 degrees, the King's bath is 117 degrees, the Kingston (or Old Roman) bath is 108 degrees, and the Cross bath is 104 degrees." The poverty of the British Islands in the supply of thermal water is shown in the fact that the next warmest spring is at Buxton, the temperature of which is only 82 degrees. It is not within the scope of this chapter to discuss the cause of the heat of thermal springs; and, in truth, the most advanced geological speculations do not afford a perfect solution of the problem.

The chemical philosophy of the Bath Thermal Waters may be thus described. We may look at them as

(1) So much water.—The quantity is practically illimitable

^{*} In a delightful volume on Greece, originally published in 1840, Bishop Christopher Wordsworth (late of Lincoln) speaks of the hot springs which gave a name to Thermopylæ, and which are connected with the history both of Hercules and Leonidas. These springs still flow from the earth, and expand their streams into pools of the clearest blue, as they did in the ages of the demigod and of the king.

(not much less than half a million gallons daily). This abundance makes our use of it easy and highly advantageous. Movement and play of muscle are permitted by the mere bulk of fluid.

- (2) So much hot water.—Whether the water be hot or warm, it increases the heat of the body, partly by direct supply, partly by diminished radiation and evaporation. To put the matter in the fewest words;—cold refreshes by stimulating the functions, heat by physically facilitating them. Heat helps organic life when it is incapable of independent work; so that there is a quickening of all vital processes which take place in cells, juices, and animal tissues. Now Nature's store of cold water is prodigal enough; it is here and everywhere; but to obtain hot water in any quantity from the interior of the earth is a grand economy of force and trouble. From the days of Rome to the present day, natural thermal water has furnished the bath of luxury and the bath of health.
- (3) So much hot saline water.—The chief Continental balneologist, Dr. Braun, calls Bath a "representative of the hot indifferent springs;" and he styles our city the English Teplitz. The gross element of heat cannot be separated from chemical composition. Essentially Bath thermal Water is alkaline; but not alkaline in the sense in which the waters of Vals and Vichy are. The alkalinity of these waters depends on carbonate of soda. A lime water is called "earthy," and its alkalinity is modified by a combination with sulphuric acid. Hence in a geological grouping of mineral waters, we call all those in which sulphate of lime is the main constituent LIME SULPHATED WATERS.* There

^{*} For this term we are indebted to our English balneologist, Dr. John Macpherson.

are, besides, fractional quantities of sodium sulphate, magnesium and sodium chlorides, and minute percentages of silica and oxide of iron. The gaseous contents are five parts of carbonic acid and 95 of nitrogen in 100 parts.

We now clearly understand our medical position, and we call Bath Thermal Water the most important Hot Lime Sulphated Water in the world.

There are two ways in which the Bath Thermal Waters may be applied:—an internal use and an external use.

(A) The key to the internal use lies in this chemico-vital fact, that a Lime Sulphated Water increases the alkalinity of the blood, but scarcely affects the alkalinity of the secretions. The practice of drinking the Bath thermal Waters did not become common until about the middle of the seventeenth century. Warm Waters were said to have three advantages over cold ones—(a) the heat is more agreeable to the stomach; (b) they have more "balsamic healing virtue"; (c) they may be drunk at any time of the year. Heat and fluidity alone (so it was said) could not be the sole causes of specific medical power; but the "immediate and sensible" effects were always distinguished from those which were called "secondary." The primary effects most spoken of were—an internal glow, felt sooner and lasting longer than after common hot water; a warmth in the head. a quickening of the pulse, and a moisture on the skin. The more remote effects were described as exhilaration of spirits, increased appetite, more sleep, and a feeling of inward support. The old and true doctrine was that the fluid should be taken "sincere from the spring"; and part of the doctrine was that the draught should be sipped slowly while the aërial bubbling lasted. Not a few in the old time disbelieved the medical virtue of a spring in which nearly

all the saline constituents exist in a comparatively small proportion: "so little soul," complained some, "in so large a body." But the bulk of fluid is Nature's way of offering a medicine. Interrogate Nature, and she says: "I give a medicine which is hot and diluted"; that is to say, the heat and the dilution are the conditions on which the medicine is supplied.

Drinking the Waters was considered to be a preparation for bathing. The old notion was that drinking and bathing should never go on at the same time; but the physicians of the last century were unanimous that each process helped the other, and both were commonly ordered together. During the seventeenth century an enormous quantity of the water was drunk; many took ten pints in the day, and unlimited measure was now and then given. Dr. Peirce's patients often drank three pints on the morning after arrival, and afterwards regularly two quarts per diem, intermitting a day sometimes. An alderman of the city drank a quart of thermal water every day for nineteen months, and was restored to "perfect ease and health." "How miserable a man had I been," said the dignitary, "had I lived anywhere but in Bath." But some physicians were much more temperate in their prescriptions, and desired convalescents to drink only so much as "shall not be grievous to the stomach." At the end of the last century the rule was (according to Warner) to divide the daily dose of the water into three portions, two of which were taken before breakfast, allowing the space of half-an-hour between each, and one at noon. If the old methods of drinking the thermal Waters were too extravagant, our present practice is too restricted. The timid dole now commonly prescribed reads like a quiet censure on the bold medical ways of generations gone by. But in no branch of therapeutics may better work be done when experience and knowledge are our guides.

(B) Concerning the external use of our mineral Waters, our own management may be favourably compared with that of many foreign Spas. The temperature of the first and second baths should never be above 96 degrees when the patient enters them; nor should it rise above blood heat (98 degrees) during the whole time of the bath. The duration of the first two baths ought not to exceed fifteen minutes. In many cases both temperature and duration require to be at lower points; and they must always be determined by the strength of body and by the nature of the disease. The arrangements for wrapping a patient, for shampooing him, and for the application of electricity or any medicated substance, form a ceremonial of itself which there is no room to discuss here. Nor is it an unimportant function of the doctor to decide when constitutional peculiarities and weakness forbid any bathing at all. But we heartily agree with the old medical dogma that the external use of our hot mineral springs does not weaken, but "stimulates and invigorates;" and to this end all professional instructions about bathing should steadily contribute.

Thermal Water put in motion confers new therapeutic power. In primitive times the water was taken into buckets by tall and strong guides, who lifted the full buckets as high as they could, and then let the water fall leisurely on the part affected. During this process, which was clumsy and inadequate, the patient stood in the hottest part of the bath. Next four pumps were erected, which were called "wet" and "dry;" the wet pump drove the water on the invalid when he was in the bath, and the pump quaintly called

"dry" operated without immersion. We call them now the dry and wet douche (Ital. duccia); the latter being for a long time the only one used. The old custom was to pump every part of the body; the fears of the timid were, however, often kindly consulted by putting segments of the body into hot mineral water, and then pumping on them. But just as the time of sojourn in a bath was absurdly long, so the number of pump-strokes often inflicted seems to us now quite astonishing. Dr. Peirce relates that 700 or 800 pumps were now and then directed on the bare head, then 1,500, then 2,000, and so on for five or six weeks every year. For lumbago 2,000 strokes were ordered to be pumped on the back, and the cure was completed by ten more pumpings of a thousand strokes each. The tremendous hydrotherapy of former days is now banished from medical practice; and a more mild and frequent regimen is in every way better. The excellent plan of combining douching and shampooing has been introduced here from Aix-les-bains, with more refinement and gentleness. The "reclining bath" and the "chair bath" provide for the necessities of those patients who are afflicted with weak limbs and failing hearts.

An old physician (Dr. Guidott) was right in saying that hot baths have the advantage of cold ones during nine months out of twelve; but the dictates of care and forethought have for that reason to be the more punctually observed. The custom of a morning bath has many recommendations in its favour. Refreshed by sleep and the early meal, the system is better able to bear the toils of the bath and all the processes auxiliary thereto. Bathing should not be, as a rule, within two hours of a meal; but some milk, or warm broth, is admissible just before going to a bath, especially during the winter. Most patients are ordered to bathe three or

four times a week. The thermal Waters should not be taken within an hour of a meal; and after drinking the Waters in the Grand Pump Room, a patient should not go into the open air for a quarter of an hour.

Looking through a number of cases recorded during the seventeenth and eighteenth centuries, we find that nine or ten weeks are mentioned as an ordinary period for a stay in Bath; but a cure or a great improvement was often accomplished in a much shorter time. A common practice was to come for six weeks, even for twelve successive years, if the disease or the disorder seemed to yield. It was urged on reasonable persons that the length of time a complaint has lasted proportionately retards the cure; and that a second or third visit might do what the first did not. It was shown that a steady continuance in the use of means was necessary to conquer all stubborn and inveterate diseases; and that chronic maladies are the proper province of natural or mineral Waters. Eager people come and go; they bathe with fierce energy, and imagine that their baths can hardly be too long or too frequent; and they forget that by such tempestuous haste new maladies are begotten. Proper credit must be given to a new manner of living, new air, new faces, and new amusements. In the early days of the fame of the Bath Waters invalids came here in the former part of the summer, and went away in the latter part, chiefly because the roads were then in the best condition for travel. Afterwards (150 to 200 years ago) it became the custom to visit Bath for medical purposes in April, to leave during the height of the summer, and to return (if possible) in September. The physicians then in repute recommended the "spring and fall," because those seasons were most free from excess of heat and cold, and therefore

"fittest for all persons and distempers."* Assuming that a malady is not urgent, and that a full choice of time of year can be exercised, the invalid's best months in Bath are March, April, May, and June, as the "spring thermal season"; and September, October, and November, as the "autumn thermal season." Different parts of the city have their appropriate seasons, too, for the lodging of the sick and the convalescent; for the climate of a place has necessarily a determining influence on the healing virtues of a Spa.

MEDICAL APPLICATION OF THE BATH THERMAL WATERS.

When we examine the medical application of a thermal Water, we have to remember the properties which make it So much water; so much heat; and such and such saline materials held in solution:—these are the points which practical physicians consider. We cannot separate any element from the others; the compound bulk is before us to work with as we can. Nature does not always tell us, as a matter of common sense, what that work is; and so we have patiently to observe and try. "English Waters," said an old physician, "best suit English bodies;" and Dr. Granville wrote (about half a century ago) that then no convalescence was thought "secure and respectable" which was not confirmed by a trial of Bath Hot Waters. But whether this be so or not, we must agree with a physician more ancient and learned than Dr. Granville, that mineral Waters are not wise enough to cure a disease by themselves, any more than a sword by itself is able to defend a man or to

^{*} When Dr. Petrce was asked, "What do you do with your baths in the summer?" "We then have leisure to bathe ourselves," was his prompt reply.

offend an enemy, but according to the right and skilful use of it

(1) The association of the Bath Thermal Waters with *Rheumatism* dates from remote times. Stiff joints and aching muscles are often bequeathed by an attack of rheu matic fever; the nervous system is shaken, and the blood is made poor. By a proper course of bathing, joints which are weak and fixed are rendered strong and mobile; feeble muscles recover tone; and the whole health improves. And not only are the consequences of an acute attack removed, but the system is fortified against a new invasion of disease. Children and young adults receive special benefit. All active symptoms must be subdued before any thermal plans are tried by a rheumatic convalescent.

Chronic rheumatism covers a large area of ground, and the term is often used in an indiscriminate way. Poor folk in our Mineral Water Hospital apply the word "rheumatics" to all large and painful joints, especially when there is conspicuous deformity and contraction of sinews. To loosen and undo these bonds is the every-day beneficence of our thermal Waters.

(2) Counterfeiting ordinary rheumatism are the destructive and crippling processes of what is commonly called "rheumatic gout." A misleading name for a disease which has a mere outside resemblance to either rheumatism or gout; and the scientific title of *Rheumatoid Arthritis* (or osteo-arthritis) conveys more accurately its grave significance as a probable disorder of the nervous system. Its later stage is as much beyond the art of medicine as a malignant disease; but in its early development few things yield more readily to the lenient influence of a thermal spa, especially when helped by other medical resources.

(3) Concerning the action of our thermal Waters on Gout, there is a remarkable unanimity of opinion among the physicians of the last and present centuries. A composite thing gout is; easy to formulate according to the frigid moonlight of chemical symbols; but this is the pathology of a laboratory, not human error and sickness. When we think of gout as a human quality, and not merely a chemical perversion of so much blood and tissue, we shall treat the man first and his gout afterwards. Our aim is to get out of the body as fast as possible, and in the most easy manner, the essential morbid poison which constitutes gout.

Much care and skill are needed in the treatment of gout with any natural thermal Water. A quiescent stage of the malady is soon kindled into fire by baths of too high temperature and of too long duration. The work we have to do is that of a long and steady siege; we promote tissue-metamorphosis by proper medicines and copious drinking of the Waters. Hear what Sydenham says:—"No man in his senses can expect that momentary alterations wrought in the blood by medicines or diet can perfect the cure of gout; the whole habit must be changed, the body must be hammered out (as it were) anew." Changing a diathesis is a serious business. Generally it is beyond our power; but it is well within our scope to "tame down" those disease-storms which surely undermine the health, even though they become milder with the advance of age.

In all times rheumatism and gout have been accepted as symbols of blood-disorder; but the nervous system is involved too, and requires its own special treatment.

(4) How peace is brought to the tumults of brain and nerve, we see in the management of *Chorea* and other sorts of *muscular spasm* by gentle washings and douchings. They

strengthen because they reduce action; they bring into subjection what was rebellious; and they coax disorderly elements into physiological rule.

- (5) Some forms of Neuralgia are distinctly relieved by a thermal regimen, the most common being sciatica and lumbago. Other less common kinds of local pain yield to the same treatment. More than a century ago cases of the so-called Devonshire colic (or "cyder colic") were nearly always sent to Bath, for the thermal Waters were deemed nearly a specific remedy for them. The pains of hysteria and of hypochondriasis have been submitted to the same plan; and from time immemorial the Bath Waters have been counted "good for hypochondriacal melancholy."
- (6) What effect have our thermal Waters on diseases of the skin? We denominate many of these by Greek names, suggestive of fanciful or far-reaching metaphors; but it greatly simplifies matters if we say that most cutaneous diseases denote the plain fact that the skin is badly nourished. For the present purpose it is sufficient to put our cases into two great groups—the dry group and the moist group. The moist varieties of skin disease are made moister, and the skin tissue softer, by thermal soaking; so that healing is checked rather than favoured. The dry varieties are either soon cured or greatly ameliorated. In the medical literature of the Bath Waters during the eighteenth century there are many records of the successful treatment of "leprous eruptions." Dr. Oliver gives the history of a number of such patients as they were admitted into the Mineral Water Hospital. And a beneficent asylum this hospital is for all whose occupations are unfavourable to steadiness of treatment and permanent cure. Better elements of hygiene are provided, rest is enforced, and the skin is protected from

those changes of temperature which injure its healthy functions.

Outside the admitted healing gifts which our thermal Waters possess, there are certain diseases or disorders which they may occasionally control—to wit, some forms of paralysis, derangements of liver and kidneys, anæmia, and chronic indigestion. There can be no doubt of the efficacy of our mineral springs in the so-called lead palsy. Dr. Darwin, in his famous "Zoonomia," recommends the frequent use of the bath when we become thin and worn; a few beams from Aquæ Solis give lustre and comfort to the evening of life. A mediæval author proclaimed the Bath Waters to be good for "lethargy and forgetfulness;" but, if this were true, surely there would be more candidates for the baths than there is water to bathe in!

In days not long ago, a rigid code of diet was enforced by "Bath doctors" on the many people who came here to be cleansed of their surfeits of meat and drink. In this question of diet there is no magic or mystery, and a sensible physician will not tease his clients with empirical whims. To prescribe rational and wholesome food is not difficult; and Dr. Oliver said with truth that "there are many Persons whose End in coming to Bath had been answer'd, had they been prudent, and liv'd by Rule. At *Bath*, as well as in other Places, the more simple the Food is, the better it is for the Patient."*

It is the glory of a natural phenomenon that it sometimes creates a literature. Human sympathies and interests are stirred. A crowd of learned Doctors of Medicine flourished here during the seventeenth and eighteenth centuries, and earned their honest bread. Their writings are little known

^{*} Practical Dissertation on Bath Waters. 1747.

for they are with difficulty obtained, and will, probably, never be republished. But they are full of wisdom and gentle humour, and are mostly faithful records of what their authors heard and saw. We shall keep in honourable remembrance the names of Jones, Jorden, Venner, Guidott, Peirce, the two Olivers, Sutherland, Charleton, Baylies, William Falconer, Harington, Gibbes, and Parry; the mortal remains of some lie within our "great church of SS. Peter and Paul," and are duly commemorated in John Britton's "History and Antiquities of Bath Abbey Church." Nor may we forget the scarce and precious volume written by our own Bishop Ken—"Prayers for the use of all persons who come to the Baths for Cure."

In a short monograph one can only indicate in a general way the place of the Bath thermal Waters in our therapeutic economy. There is no room for more than the alphabet or elementary grammar of a large subject. It was a bold saying of Emerson's that it is the duty of man to repair Nature; or, in other words, to make the most of what Nature gives us. Unworthy though we may be, we are the stewards of what is held in trust for the benefit of all mankind. There is a discourse by Pliny on the wonderful things which exist in water (Aquarum mirabilia), and on Cicero's estate there were particular springs dignified in poetry. The thermal fountains of Bath have been called her "staple commodity." By chemical and organic powers is their work done; and we know that these powers are in harmony with the old and abiding law, that "Nature is the physician, and Medicine her mate."

BATH AS A HEALTH RESORT.

The laudatory epithet of "King of Spas" which Dr. Granville gave to Bath half a century ago denoted much more than the medical faculty of its thermal springs. It included the attractions of Nature, the embellishments of Art, and the qualities of situation and climate which make Bath a pleasant residence, and a healthy place to live in. One of the Saxon appellations of Bath was—the City of the Warm Vale.

Meteorological statistics tell us nothing about human susceptibilities to weather. When all the figures are set down in dull, dry order, and everything has been recorded which may be registered by instruments, there still remain influences not easy to describe, capable of affecting people (especially invalids) in entirely different ways. The Transactions of the Bath Natural History and Antiquarian Field Club may be consulted for details of barometric pressure, thermometric and hygrometric range, mean temperatures, prevailing winds, cloud, and rain.

"The Bath climate owes its chief distinction to its more temperate character, or to its extremes of heat and cold lying within more contracted limits, notably in very hot and very cold seasons." The girdle of hills protects the city from the extremity of cold, and blunts the edge of frigid winds; while that long arm of salt water, the Bristol Channel, moderates heat in accordance with the well-known law about proximity of sea. The Midland Counties and even central Yorkshire are hotter than Bath on any given hot day, and colder than Bath on any given cold day. Those parts of England approach, like other large areas of land, the Conti-

nental type of climate; and the fluctuations of this type are often sudden and decisive.

The hills around Bath afford wide scope for atmospheric change. Altitude is equivalent to lessening of temperature, with increase of ozone and circulation of air. The acute bend (nearly a right angle) of the parallel ranges of hills checks a "draught" through the valley, but makes the air near the river close and hot during the latter part of July and the greater part of August. There are, however, two great points in which the climate of Bath is favourably distinguished when compared with that of Greenwich, and of the Midland and Eastern Counties generally:—(a) in Spring Bath has a higher mean temperature; and the mean daily range is less; (b) in Winter the mean temperature is decidedly higher; and the extreme day and night temperatures are higher also.

Such are the general data for judging the climate of Bath as a health-resort. Few places in the British Isles enjoy so many bright and genial Winter days; the excellent way in which Bath is paved makes it quickly dry aftér storms; and the westerly gales of Autumn make the atmosphere more clear and pure.

THE ENVIRONS OF BATH.

Notes on the Principal Parishes within Four Miles of the City.

W. DAUBENY.

BATHAMPTON. Distance 2 miles E.—This Parish, formerly known as "Hantone," afterwards as "Bathentune," and then as Bath-Hampton, was one of the exempt Liberties of the Church of Bath, and included in the Hundred of Bath-forum. The Manor of Bathampton formerly belonged to the Church of Bath, and continued in its possession till 1548, when the Bishop of the See exchanged it with the King for other property belonging to the Priory of Bath. In 1552 it became the property of one William Crouch, but shortly afterwards it was sold to Thomas Popham, and from him passed to the Hungerfords, and Bassets; Sir William Basset's heirs selling it in 1701 to Charles Holder, through whom it came to Ralph Allen, of Prior Park, the members of whose family The Church, dedicated to St. Nicholas, was still hold it. mainly rebuilt in 1754, the north aisle being built in 1859. The tower contains five bells, the third and fifth being pre-Reformation-with Latin inscriptions on them; on the fourth bell is inscribed the date, 1622, the initials of the caster, Robert Purdue, and the arms of the Prince of Wales, with the motto Ich Dien, and the letters "C.R." There were under the south wall of the old Church, two recum-

bent effigies on altar tombs of about the fourteenth century, the one being a cross-legged knight in armour, and the other a lady: these, though much mutilated, are now temporarily deposited in the sills of windows in the south aisle. Underneath the east window, in the exterior wall, will be found in a niche, a mutilated figure, which has puzzled archæologists: some consider it to represent an Ecclesiastic of the twelfth century, while others contend that it is a female figure, and may probably be intended for some abbess. There is no doubt that it was originally inside the Church, but was removed to its present position when the chancel was rebuilt. The patronage of the Church was, for many centuries prior to the Dissolution, vested in the Bath Abbey, after which it was granted to the present patrons, the Dean and Chapter of Bristol, who united this living with Bathford, from which it was formally separated in 1855. The Fisher family, whose monuments appear in the chancel, were for some centuries the lay impropriators, and lived in the house that was in 1317 formally set apart for the Vicar.

BATHEASTON. 2½ miles E.—This place was formerly known as "Estone," and consists of the Tithings of Estone, and Amrill or Amorel, which were two of the exempt liberties of the Church of Bath, and are within the hundred of Bathforum.—The greater portion of this Parish appears to have been granted to John de Villula, the first Bishop of Bath, by William Rufus, and the Bishop conveyed the property to the Bath Abbey. There was an old mill on the Avon known as Batheaston Mill (part of the property belonging to the Bishop) and when this was pulled down in 1844, two quaint sculptural devices were found in the old walls, one representing a good and bad spirit striving for a soul, and the other the scourg-

ing of our Lord. These, as well as portions of Norman columns also found in the old building, may still be seen in the new mill which is on the site of the old one.* The Church, dedicated to St. John the Baptist, consisted of nave, chancel and south porch; it has, however been mainly rebuilt, and much enlarged during this century, and is now a handsome and commodious Parish Church. The original south wall and porch were decorated, and it is understood that the materials were again utilised and replaced in erecting the present south aisle and porch. There are several mural monuments to the memory of the Panton and Walters families in the last century. The tower, perpendicular, contains six bells, one of which, the fourth, is supposed from the inscription to be of the thirteenth century. After leaving the Church and proceeding about a mile and a half further through a most picturesque valley, we reach the romantic and interesting hamlet or Parish of St. Catherine's or St. Katherine's: The Church and Mansion House, known as St. Catherine's Court, lie close together. The whole of the Parish formerly belonged to the Bath Abbey; who had here a grange, gardens, and a vineyard, and from a description of the house given in a lease granted by the Prior and Convent of Bath in 1524 it must have been not only a very capacious habitation, but one in every way well adapted to carry on the various farming operations of the monks. Many portions of the old house still remain, the front facing the Church appears to be of the Elizabethan age, but the porch is supposed to have been erected in Charles the First's reign. The hall formerly contained a fountain, supplied from St.

^{*} Lady Miller and her literary gatherings in Batheaston Villa have already been referred to. (See p. 125.)

Catherine's well, and a handsome carved screen surmounted by the arms of King Henry VII.—the united roses with the garter supported by the lion, and the dragon for England and Wales. After the dissolution this property passed to the family of Malté; it was then possessed by John Harington of Kelston, and by him sold to the family of Blanchard, who held it for several generations; it afterwards passed to the families of Walters and Parry, and was eventually sold to the late Colonel Strutt about the early part of this century, from whom it descended to the late Rev. R. Drummond, whose widow still resides in the house. Church, dedicated to St. Catherine, though mainly built by John Cantlow, Prior of the Bath Monastery about the end of the fifteenth century, contains traces of much older work; the capitals on which the tower arch rests, as well as a small window in the tower, and the font, are evidently Norman. The East window is filled with stained glass to the memory of Prior Cantlow, as will be seen by the Latin inscription on it, and the arms of the Bath Abbey; in the smaller compartments are roses with the midday sun. The other windows in the chancel contain similar devices, as well as an eagle with a scroll from his beak, on which is inscribed the Prior's name. There is an old wooden pulpit with gothic niches, which was originally coloured red and vellow. There are several monuments to the memory of the Blanchard and Parry families. The tower has a peal of four bells; the Latin inscriptions on three of them being invocations to the Virgin, St. Nicholas, and St. John the Baptist.

CHARLCOMBE. 2½ miles N.E.—This village is known in Domesday Book as "Cerlecume," otherwise Ceorl's Combe. The Manor and Parish belonged to the Bath Abbey prior to the Conquest, and continued in their possession till the

Dissolution. It was an exempt liberty of the Church of Bath, and included in the hundred of Bathforum. The Church, dedicated to St. Mary the Virgin, is, according to tradition, the Mother Church of Bath. It is a very small. but interesting building, though, in its partial reconstruction, not a few of the older architectural features have been lost. The porch is ancient, and the inner arch, as well as the walled-up doorway on the north side bespeak Norman work. The bowl-shaped font stands on a single shaft, and is believed to be Saxon. The stone pulpit, says Collinson, "is curious, and without doubt as old as the Church itself; it was formerly ascended through a door in the south wall by stone steps, which door still remains, though now blocked up by the seats. It is circular, nine feet in circumference within, and one foot thick all round." The doorway has since been walled up, and quite obliterated; the pulpit lowered, an access made to it from the interior, and its thickness much diminished. It has been suggested that the nave of the Church was originally intended for the chancel to an older Church, the design of which was never carried out, and certainly the internal structure affords evidence in support of this theory. On the north-east side of the Church traces have been discovered of the foundations of some monastic buildings, and, it is quite probable that a small monastic body might have been established here in connection with the Bath Abbey; in confirmation of which it should be mentioned that there is a well near the Churchvard wall, though now covered up, known as the Monk's The small turret originally contained two bells with Latin inscriptions on them, being invocations to St. Peter and the Virgin, these being the tutelary saints of the Abbey Church of Bath, and of this Church. In the Chancel

will be seen a monument to the memory of Lady Barbara Montague, fifth daughter of the Earl of Halifax, who died in 1765, and another to Sarah Fielding, sister of the novelist.

Englishcombe, or Inglishcombe. 2½ miles, S.W. -This village is within the Hundred of Wellow, and is recorded in Domesday Book as "Engliscome;" but the etymology is uncertain. Collinson suggests that it may be derived from the Saxon Inga, and Lomb., signifying the Pastures in the Valley; or from Ingla and Lomb., the Valley of the English, in reference to some victory obtained by the inhabitants of the country over the Danes, or some other hostile race—or it may have been so named from the fact of the Wansdyke passing through this parish. The Manor of Englishcombe was, at the Conquest, given to the Bishop of Coutance. In King John's reign the estate passed to Thomas de Harptree, whose son Robert assumed the name of De Gournay, and in this family it continued till about 1330, when Sir Thomas de Gournay was attainted for the murder of Edward II.; he was afterwards beheaded. and his estate confiscated to the Crown, and this manor then passed to the Duchy of Cornwall, the present owners of it. The Gournays appear to have had large territorial possessions in this county, as well as in Wilts and Dorset, and to have erected in this parish a baronial castle, surrounded by a deep fosse, which, as well as a small portion of the wall work, was to be seen about the end of the last century, but no traces of the building are now left, though the site of the Castle is known to have been in a field called Culverhaves. The materials of the building were used in erecting the old rectorial barn near the Church, which belonged to the Abbey of Bath, and is well worth inspecting. The advowson of the Church was in King John's reign given to the Monastery of Bermondsey, by Hawisa de Gournay, but it shortly afterwards became the property of the monks of Bath, who received from the rectory for the use of their refection a pension of 50s., the Prior of Bermondsey receiving therefrom another pension of two marks, 10s., the whole rectory being in the thirteenth century only rated at six marks, 3s. 4d. The Church (the dedication of which is unknown) is interesting, and without doubt originally Norman. It consists of a nave, chancel, and central tower, with a porch and chapel on the south side. The doorway is Norman, with a fragment of a stoup in the angle, and in the porch are two small cuspated lights looking into the chapel. The arches supporting the tower appear to be early English, but the capitals and pillars on which they rest are Norman. Under the tower on the north side are two sedilia in fair preservation. The font, though much mutilated, is supposed to be Norman. The chapel, which is said to have belonged to the Gournay family, has a perpendicular window which has been moved from the east end to its present position, and has on the mouldings surrounding it several coats of arms. There was no doubt an altar at the east end of the chapel, and the piscina is still in situ. The west window is also perpendicular, and has in its mouldings four shields, one of them being charged with the Bath Abbey arms. The windows in the chancel as well as the piscina and credence table are decorated. On the east side of the chancel arch will be seen what is not common in our churches, a figure of the "Bambino" well carved and in good preservation. The belfry contains five bells, two of which are pre-Reformation bells, and have Latin inscriptions, being invocations to the Virgin and our Saviour. About half a mile from the village will be seen a conical

hill known as Barrow Hill or Round Barrow, which was formerly supposed to be an ancient barrow or tumulus, but is now considered a natural formation of no antiquarian interest.

Kelston. 4 miles W.—This village was formerly known as Calveston, Kelveston, or Kelweston, and is in the Hundred of Bath-forum. The Manor of Kelston was from a very early period the property of the Abbey of Shaftesbury, and continued in its possession till the Dissolution. supposed not to be mentioned in Domesday, but it has been suggested that it may be included under the name of "Hengstostrig," Kelston Round Hill being also known as "Henstridge Hill," and the Abbey owning no other property in Somerset of the name of Henstridge, except the Manor of Hengstostrig. At the Dissolution this manor was given by Henry VIII. to John Malté, who took charge of the King's natural daughter, Etheldreda, or Awdrey, who succeeded to this manor in 1547, and shortly afterwards intermarried with John Harington, gentleman, of Stepney. She survived her marriage but few years, leaving one daughter only, who is supposed to have died unmarried, when the estates descended to her father, and he, about 1550, intermarried with Isabella, the daughter of Sir John Markham, and by her had a son, Sir John Harington, who succeeded to the estate in 1583. Mr. Harington obtained a grant of arms in 1568, from which it appears that he claimed to be descended from the old family of Harington or de Haverington, of Brierley, Yorkshire. Sir John Harington, who was a literary and witty man, was a godson of Queen Elizabeth, and much in her favour. He died, and was buried at Kelston in 1612. The Harington family continued in possession of this property till 1759, when

it was sold to Cæsar Hawkins, gentleman, after Sir C. Hawkins, Bart., and he, a few years afterwards, pulled down the old mansion erected by the Haringtons, which was near the church, and built the present house. From a description given of the old house in 1764, it appears that it contained, amongst other things, two grand carved stone chimney-pieces, one of which was in the hall, and has fortunately been preserved from the wreck, and may still be seen; it contains a curious representation of Joseph and his brethren. The estate was sold by Sir J. C. Hawkins, the grandson of the first baronet, to the late Joseph Neeld, gentleman, from whom it passed by marriage to the late Colonel Inigo Jones, whose son now owns it. The Church, dedicated to St. Nicholas, originally consisted of a nave and chancel, with north and south porches, as well as a perpendicular tower. It was, however, found necessary to pull down nearly the whole of it, except the tower and the north porch, and it was rebuilt in 1860. In the door jamb in the north porch is a very small and curiously sculptured rood, and in the porch may be seen carved specimens from the old church, consisting of sections of a cross and sepulchral slab, the device on the former representing the Tree of Knowledge of Good and Evil, with the usual Saxon knot, that on the latter being an inscribed cross. An old circular ornamented bronze, with christian emblems on it, and a section of a piscina were also found, most of which antiquities appear to be of Saxon, or transitional Saxon, work, and lead one to suppose that some Saxon church or chapel probably existed on the site of the church which was taken down. There are several monuments in the church and churchyard to the memory of the. Harington and Hawkins families and their connections.

LANGRIDGE. 4 miles N.E.—This village lies on the eastern ridge of the Lansdown hill. It is in the hundred of Bathforum, and appears in Domesday under the name of "Lancheris," which Dr. Stukely suggests, may be derived from the Roman road which passes westward of it, but it seems more probable that the situation of the place on a long ridge of hills gave rise to the name. It was formerly the property of the Bishop of Coutance, but in the early part of the fourteenth century Adam le Walish was found by inquisition to be the owner of the Manor and Advowson of the Church, which continued in the possession of his family for several generations, probably till about the end of the fifteenth century. Many members of this family resided in the old manor house, and were buried in the Church. From the Walish's the manor passed to a gentleman of the name of Walrond, in whose family it continued for some generations till the early part of the eighteenth century, when it was sold to William Blathwayte, Esq., of Dyrham, a member of whose family still owns it. The old manor house was built by one of the Walishes, but very little of the original building is left. The Church, dedicated to St. Mary Magdalene is very small, consisting of nave, apsidal chancel, tower and south porch. The inner doorway is Norman, and on the right hand side is a stoup for holy water. The chancel arch, which is also Norman and only seven feet wide, was a few years ago obliged to be partially taken down in consequence of its insecure state, but all the old materials were worked up again, and a careful restoration effected. Above the arch is an old piece of sculpture which is supposed to represent either the two first persons in the Trinity, or the Virgin with the Saviour in her lap. The Church was restored in 1870, when the old

chancel was taken down and an apse erected. The old east window consisted of two lights with representations of our Saviour, and of a Bishop, and Robert Walsh's initials. There are two brasses to the memory of Robert Walsh and his wife. The font and tower are considered to be early English. The belfry has one old bell, which is thus inscribed, "Laudem Resona Michaeli." The Rectory house occupies the site of an old Roman villa, several remains of which have from time to time been discovered.

NEWTON St. Lo. 3½ miles W.—This village is charmingly situate on the summit of a hill to the left of the Lower Bristol-road. The view of Newton Park, and of the surrounding country, will well repay the visitor for his short climb. The suffix St. Lo is the family name of the former possessor of the manor. At the Conquest this was one of the numerous possessions of the Bishop of Coutance, and was known in Domesday as "Niwetone," and is in the hundred of Wellow. It is not known precisely when this property came into the possession of the St. Lo family, or, as they were formerly called, "de Sancto Laudo"; but they held it until the latter end of the 12th century, and the last lord of Newton of this name was Sir John St. Lo, Knt. He was succeeded by his daughter, and heiress, Elizabeth, the wife of William Lord Botreaux; and from him it descended to her son and grandson; and the latter dying without male issue, it passed to his daughter and heiress, Margaret, the wife of Sir Robert Hungerford, and from them to their son and grandson, Thomas Lord Hungerford, and from his descendant to Lord Hastings' family. It ultimately came into the possession of the family of the late William Gore Langton, esq., whose son now owns it. The church, dedicated to the Holy Trinity, was in 1857 restored and much

enlarged by the late Mr. Gore Langton, and the then rector of the parish, and at the same time a small door on the south side of the chancel arch, and a hagioscope, which had been blocked up, were reopened. The belfry contains six bells, and, as the inscription on one of them proclaims, "In 1741 Thomas Bilbee cast all wee." There is in the south aisle a large mural monument to the memory of several members of the Langton family, the first death recorded on it being in 1701. In the churchyard will be seen the remains of an old cross, consisting of a portion of the shaft, and three steps. Near the church is a free school for poor children, built and endowed by Mr. Richard Jones, of Stowey, in 1698. A Roman pavement was discovered during the formation of the G.W.R., and subsequently removed to Keynsham.

SWANSWICK. 3 miles N.E.—On the right of the main road the visitor will observe the conspicuous hill, known as Solsbury hill. The view from the top is very extensive, and commands several camps, and other interesting objects. The derivation of the name is uncertain. Some connecting it with the myth of Bladud and his pigs, suggest that it is a corruption of Swineswick, while others would derive it either from Swain, a Saxon lord, who owned property in these parts, and Wick a village, or from King Sweyn. The name is spelt as Swayneswyke, Swainswick, and Swanswick; but the last is the most usual. Swanswick does not appear to be recorded in Domesday; and the first mention of it is in Edward III.'s reign, when the manor was held by Sir Matthew Gournay, In 1399 William Schawe, Parson of the church of Swaynsewyke, and Thomas Norton, Chaplain of the same, granted to Edmund Forde, and Johanna his wife, their Manor of Swayneswyke, with the advowson of the church,

and all of their lands and tenements which they were possessed of in Swayneswyke, Tatwyke, and the city of Bath. This manor and advowson seems to have passed from the Fordes to several proprietors, and ultimately came into the possession of the Rev. R. Dudley, D.D., Fellow of Oriel College, Oxford, and Chancellor of Salisbury Cathedral, who in 1529 granted them to his college for the maintenance of two fellows and two exhibitioners, and the college still holds these properties. Tatwick, or Tatwyke, is an ancient manor and hamlet in this parish, situate about one mile north of the village. It is known in Domesday as "Tatewiche;" and after the Conquest was given to the Monks of Bath, but at the Dissolution it was granted to Sir Walter Dennis. This village was the birthplace, in 1600, of the celebrated William Prynne.* The church, dedicated to St. Mary the Virgin, now consists of a western tower, nave, with north aisle, a chancel with a chapel on the north side, and a south porch. It shows evident signs of considerable antiquity, and was originally probably either a Norman or a transitional Norman building. The tower, which is now included in the church, and presents a very awkward appearance, was, no doubt, originally outside the old church. The entrance from it to the Nave is under an early English arch. The south wall of the Nave, as well as the south pier of the chancel arch, which is early English, are much out of the perpendicular, and probably have been in the same state for a long period. The windows on the south side, as well as the stoup, with its ornamental canopy, just inside the south door, appear to be decorated. The chapel is separated from the chancel by an arch with modern panelling. On the south side of this chapel there is a piscina; and

on the north side of it an ornamented canopy, with a shield at each end, forming no doubt the head of a recess for some altar tomb, or effigy. Outside the small door on the north will be seen a stoup, and over the door was at one time a statue of the Virgin. The southern doorway is an interesting specimen of Norman architecture, and in very fair preservation. The south aisle is perpendicular. The chancel is modern. There is in the chancel a brass to the memory of Edmund Forde, before-mentioned, with a Latin inscription, and his portrait in the attitude of prayer. He died in 1439, and is described as of Swayneswyke. The old manor house, now used as a farm house, is close to the church, and, with its surroundings, still shows some signs of antiquity. It was in the early part of the 17th century occupied by the Capell family, who probably held it on lives, or on lease from the college. On a stone in the wall of the garden belonging to the house is inscribed the Capell crest—a demi lion rampant, holding a crosslet fitchée—and, underneath, are the initials "E. M." "Capell. Edward. Mary. 1625." In this house is preserved a very old sword, the blade of which is nearly four feet long, by two inches wide, and near the hilt is a shield charged with two bars conjoined in fesse wavy; the initials R. D., and the date 1423. It has been suggested that this sword was probably some municipal relic, used for processions or other like occasions, and that the original date was 1623. the figure 6 having by mistake been converted into a 4.

TWERTON. 1½ miles S.W.—This is a large and populous parish, a great proportion of the inhabitants being artisans and mechanics. There is an extensive cloth manufactory here, one of the largest in the west of England, and of far famed reputation, carried on by the Messrs. Carr, who employ between four and five hundred hands, and have conducted

this business for nearly half a century. A cloth manufactory is known to have existed here ever since the seventeenth century, and most probably one was established long prior to that period, as this business was commenced at Bath as early as the fourteenth century, under the auspices of the Monks, and the situation of this suburb is so favourable for utilising water power. The name of this village has been variously spelt Twyverton, Twyforton, Twiverton, Tiverton, Twirton and Twertone. In Domesday book it is known as "Twertone," and is in the hundred of Wellow. The derivation of the name seems rather uncertain. Professor Earle suggests "that it may possibly be a condensation of æt-wærtune, i.e., at the town of the weir or weirs, and it is not at all unlikely that the earliest weirs were projected from that bank of the stream, or it may be an abridgment of at-ofer-tune, i.e., at the town on the bank (ofer) of the Avon, implying the further idea of opposite bank, yonder bank, because of its suburbanity to Bath. This latter derivation is favoured by those varieties of spelling Twiverton and Tiverton." The Manor of Twerton formerly the property of the Bishop of Coutance, was at the conquest held of the Bishop by Nigel, physician to the Conqueror, and by Goisfrid or Goiffrid Malreward of Norton Malreward, in this county. It sub sequently passed to the family of Sir Richard Rodneye, who held it till Queen Elizabeth's time, after which it was divided and held by different persons, and ultimately the whole became the property of the late Mr. W. Gore-Langton. In 1318 Sir William Malreward gave the Church of Twiverton to the Prioress and Convent of Kington St. Michael, near Chippenham, free of all services saving Episcopal rights, and this grant was shortly afterwards confirmed by the Bishop of Bath and Wells, and subsequently by

the grantor's son Geoffrey. In 1342 a vicarage was established, and it was directed that the Vicar should have the Rectorial house and Curtilage, that he should pay to the Convent 100s. yearly, and, in default thereof, that he should pay one mark to the building of the Church of Bath. A pension of two marks was reserved out of the rectorial: tithes of this parish to the nunnery of Minchin Barrow, in-Barrow Gournay Parish. At the Dissolution the Rectory was granted to Sir Richard Long, formerly Steward to the Convent: at Kington. The Rectory is now owned by Oriel Coll., Oxon. The Parish Church, dedicated to St. Michael, is entirely new except the porch, tower, Norman doorway, and font. It appears that a fifteenth century Church succeeded a Norman structure, and that the former was pulled down, and a new one created in 1839, but this being inconvenient and ill adapted to modern requirements, it was removed, and another erected in 1886, when the Norman doorway was fixed in its present position within the north porch. Thealabaster reredos reflects great credit on the designer and workman, and all the internal fittings are substantial and good. A new Church (St. Peter's) has recently been built at the east end of the Parish, to accommodate the large and increasing population in that locality. There is a housewhich Henry Fielding once occupied at the corner of a row of buildings, called after him Fielding's Terrace, and over the door is some sculptured design or crest; but its history is: unknown.

WESTON. 13/4 miles W.—This is an ancient and very large parish, extending in one direction from the River Avon to Lansdown, bounded by Kelston and North Stokeon the west, and by Walcot on the east, and is in the Hundred of Bath-forum. The name of the place has scarcely

varied since the Conquest; it was then known as "Westone," the greater portion of the parish belonging to the Bath Abbey, which received a further grant of land therein from John de Villula, Bishop of Bath in the twelfth century, the monks thus practically possessing the entire parish, which they held till the Dissolution. John Harington, gentleman, of Kelston, in the seventeenth century acquired the Rectorial tithes of this parish, and he in 1699 conveyed them in perpetuity for the augmentation of the Vicarage. After the Dissolution the Crown held the Manor of Weston till 1628, when it was sold, and about the middle of the last century came into the possession of the late William Oliver, gentleman. The greater portion of the land on Lansdown, including Chapel Farm, was in the early part of the eighteenth century the property of the Blathwayte family, and still continues in their possession. This Chapel Farm, which is nearly opposite the inn known as the "Blathwayte Arms." on the Lansdown-road, was so called from the fact of there having been formerly on this site a hospital for Pilgrims on their way to or from Glastonbury, with a chapel annexed, dedicated to St. Lawrence. Very scanty remains of these buildings now exist, though a portion of what was most probably the east end of the chapel may still be seen, with traces of old windows, though partially hidden by the ivy, and it is understood that a piscina has been discovered within this portion of the building, which is now unfortunately used as a coal-cellar, and was thus inaccessible when we visited the spot. It seems probable that a portion of the Hospital cemetery was on the south side of the chapel, as several skeletons have been exhumed hereabouts; some found in stone coffins, and all buried with their faces downwards. The monks of Bath, who formerly held a fair at the Barton Grange, Bath, some time afterwards removed it to the road near this old chapel, and held it on Saint Lawrence's Day. To the left of this inn will be seen the Bath race-course. Lansdown was the scene of a noted sanguinary battle between the Royalist and Parliamentary forces in 1643, the former under the command of Prince Maurice, Lord Hopton, and Sir Beville Grenville, the latter being commanded by Sir William Waller.* A monumental obelisk to the memory of Sir B. Grenville, was erected by his grandson, Lord Lansdown, in 1720, and is a conspicuous object at the extreme end of the Down. Soon after reaching the summit of Lansdown from Bath the visitor will observe on his left a lofty erection, known as "Beckford's Tower." It was originally built by the late Mr. Beckford, of Fonthill Abbey, as a place of retirement, and as commanding a magnificent view of the surrounding country. He fitted up, and most tastefully decorated, several rooms in this building, besides filling them with valuable works of art and articles of virtu. The Tower is 154 feet high. Weston is supposed to have been the birthplace of Elphege, the first Abbot of the Bath Abbey. The Church, dedicated to All Saints, is quite modern. The tower is perpendicular and originally contained six bells, which were taken down and recast by Thomas Bilbee in 1739. There is an old tomb in the vault or crypt under the tower of about the twelfth or thirteenth century, with an incised cross upon it, and a Latin inscription. The Church contains many monuments to the memory both of visitors to Bath, who were buried here, and of some eminent Bathonians.

^{*} See p. 61.

Notes on the History of Claverton. H. D. Skrine, J.P., D.L.

THE village of Claverton is romantically situated on a terrace about half-way up the steep slope of the hill known as Claverton and Hampton Down, and overlooks the lovely valley of the Avon which divides this parish from Bathford.

The ancient name of the Manor was Clat-ford-ton, which was afterwards altered by spelling to Claftertone and then to Claverton. The name, in the opinion of Professor Earle, is derived from the ford over the Avon between Claverton and Warleigh. Clat-ford-ton would then mean the settlement by the ford of the water-lily. That this is no mere conjecture may be shown. The stream near the ford abounds in water-lilies, and a field on the Warleigh side is still called Clot-mead: Barnes, in his poems, calls the Stour the "Cloty Stour," for a similar reason. The bounds of the parish are probably the same as in the earliest times, as in "The Land Limits" of Hampton, a document of the tenth century, the boundary-line of the parishes of Claverton and Hampton is the same as at present. This was-"First from the Avon, along the Mere-broc, or boundary-brook, to the Herces-næs, or angle of the camp (on Hampton-down), then along the Herces-Dic, or Dyke, of the camp to the top of Bathwick-hill." This Mere-broc can still be distinctly traced, and is the boundary of the parishes now.

The Manor of Claverton is thus described in Domesday Book:—"Hugolin holds Claftertone. Suain held it in the time of King Edward (confessor) and gelded for 5 hides. The arable is 6 Carucates, and there are 4 villanes, and 7 cottages with 4 serfs (servants), and a mill of 7s. 6d. rent, and 20 acres of meadow, and 12 furlongs of pasture in length and breadth." It was formerly, and is now, worth £7.

Hugolin, or Hugo-cum-Barbâ, also called Interpres (Interpreter), who held the manor in the time of the Conquest, is said to have been one of the Justiciaries to whom William I. entrusted the verification of Domesday Book. Hugh, in the time of William Rufus, sold the manor to John de Villula, together with Warleigh and Hampton and part of Easton; a very pretty property almost in a ring-fence, affording doubtless certain sporting advantages. That Claverton was to some extent a sporting ground may be inferred from the fact that Bishop Button, of Wells, who owned it in the fourteenth century, obtained from Henry III. a charter of Freewarren on all his lands in this parish, and one of the fields still bears the name of cony-gre. Not long after, a grant was procured that this manor should be exempted from the jurisdiction of the Hundred Court, and be constituted a separate liberty with Hampton. John de Villula, Bishop of Bath and Wells, endowed the Abbey of Bath with this and other manors, but afterwards resumed possession of some of them as Bishop, and Claverton in this way escaped the fate of the other manors belonging to the Abbey at the Dissolution, and was exchanged by Bishop Barlow in 1548 with King Edward VI. for other lands in the county. after (4 Edward VI.) it was granted to Matthew Colthurst, of Wardour Castle, Wilts, whose son Edmund in 1588 sold both the manor and advowson of the living to Edward Hungerford, Esq., from whose family it passed to Estcourt. Sir Thomas Estcourt (1609) sold the estate to William Bassett, Esq., whose monument is in the chancel of the His grandson having deeply mortgaged it, it passed into the hands of Richard Holder, Esq., who sold it in 1714 to William Skrine, Esq., of Bath. Mr Holder gave $f_{121,367}$ 7s. for the estate, including in the purchase 4 hogsheads of wine from the vineyards of Claverton, valued at £28. William Skrine's son sold it to Ralph Allen, of Prior Park, in 1758.

The old Manor House, which occupied an imposing site immediately above a noble flight of stone steps, which still arrest attention near the little church, was built in the Elizabethan period by Sir Edw. Hungerford, and was a fine specimen of domestic architecture, and its destruction must be considered, from an artistic point of view, a public misfortune.

Although the name of Claverton does not figure in the early annals of England, there are some historical land marks on its boundaries. The Ford and Pack-horse-road which traversed it, and the Wansdyke, the ancient frontier rampart of the Belgæ, passed along two sides of the manor.*

This Pack-horse road, which traversed the ford at War leigh, joined the Roman road to Marlborough on Farleigh Down, and the Wansdyke can be traced at Warleigh, opposite the Belgic Camp on Hampton Down. This Camp was the frontier fortified town of the Belgæ, and the Wansdyke was connected with it, and formed its circumference on three sides. The vallum can be distinctly traced all round the Camp-which must have been nearly 80 acres in extent, as it is 74 now, without counting the space that has been destroyed on the eastern face by the quarries. The interior is parcelled out into parallelograms, divided by low grass embankments, the foundation of ancient walls. Similar inclosures are to be seen outside the Camp, both on the Claverton and Hampton sides, showing that this must have been a very considerable settlement. Ptolemy says that Bath was one of the cities of the Belgæ; no doubt the Hampton Camp was the Bath he had heard of. The great Foss-road from Exeter to Lincoln traversed this Camp, and can still be

traced through it. It led to the Ford over the Avon just below Bathford Church, which gave its name to Bathford, anciently called "Forde." In a field called Horslands, at Bathford, through which this Ford-road passed, were found, in 1640, the hypocaust and floor of a Roman villa, described by Aubrey in the "Monumenta Britannica."

In the month of June, 1643, Claverton was the scene of a battle between the Royalists and Parliamentary forces. Waller occupied Claverton Down with his main body, and sent a strong detachment, with two cannon, across the Avon which he had spanned with a bridge at Warleigh, and built a redoubt to defend the bridge and ford on the Claverton side. His lieutenant, Major Dowet, placed his guns on Monkton Farleigh Down, and sent forward a detachment to occupy a wood on the road to Bradford, by which the Royal army was advancing. After an hour's engagement, the Royalists overcame all opposition, and chased the enemy to Batheaston and Bath, and, turning the guns on Claverton, attacked and took the redoubt and Claverton village-the Parliamentarian army retiring into Bath. This was immediately before the Battle of Lansdown, and opened the road to Oxford to the Royal army. One of the cannon balls fired from Warleigh lodged in the chimney-piece of the gallery of the Manor House, and is still preserved. The Parish Register records that "under ye west wall of the Churchyard were buried 3 soldiers killed of the Parliamentary party, and one of the Royalists in an unhappy civil war at the river side in the Ham Meadow."

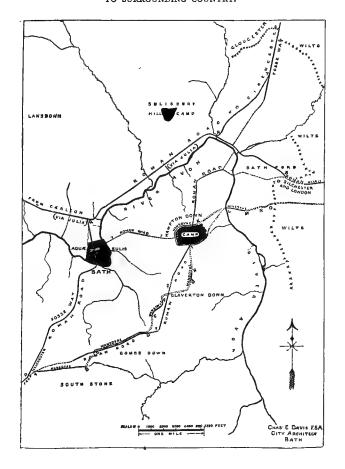
Passing over another hundred years, we find the Rev. Richard Graves the Rector of Claverton. He was rather a remarkable character, a scholar, poet, and satirist, of no mean order, and it might be truly said of him that "he was a fellow

of infinite jest and excellent fancy." He was presented to the living by Mr. Skrine in 1748, and subsequently purchased the advowson. He held the living 56 years without one month's absence from his ministerial duties. His literary fame rests principally on his work "The Spiritual Quixote," an imitation of Cervantes, intended to employ the force of satire against what he considered an unwarrantable intrusion by the laity into the priestly functions, and as a protest against the religious excitement which Wesley and Whitfield and their immediate followers had aroused, and which, in the opinion of Graves and of most the old-fashioned churchmen of the day, was a very great danger. It was composed in consequence of an invasion of his own spiritual dominions, by a journeyman shoemaker from Bradford-on-Avon, who held a conventicle in an old house in the village, and measured swords with the rector in a dialectic combat. "The law being on the side of the parson, the shoemaker beat a retreat, but expressed his desire to preach there for half a year, that it might be seen which would convert most drunkards and sinners of every description."

One of his pupils, Henry Skrine, of Warleigh, in his book on "The Rivers of Great Britain," thus speaks of Claverton and its Rector:—"About midway in the ascent overlooking Warleigh and the river the pleasing village of Claverton seems to hang suspended, where its large Gothic mansion renowned in the civil war, and its little church, with the pyramidical tomb of the late much esteemed Mr. Allen, are striking objects. Neither is its Parsonage less pleasing; the little grounds of which are laid out in a truly classic taste by the Rev. Mr. Graves, the friend and literary rival of Shenstone, where that worthy veteran closes the placid evening of his days in the retirement he has happily embellished, deservedly beloved and respected."

SKETCH PLAN

SHOWING POSITION OF HAMPTON CAMP WITH REFERENCE TO SURROUNDING COUNTRY.



SKETCH PLAN OF HAMPTON CAMP.

CHAS. E. DAVIS, F.S.A.

Although Aquæ Sulis with its suburbs must have occupied a much larger area, it is here represented as bounded by a wall and fosse to the north on the same line as the mediæval borough-wall, and by a similar line of boundary almost at a right angle from the borough-walls near the present Theatre, to the river by a direct line slightly to the east of a brook that ran in that direction and still forms a parish boundary.

The area between these two lines and the river on the remaining two sides exceeded 69 acres.

The Camp on Hampton-down is bounded on the north, west, and south by a dyke, and on the east by a cliff. This Camp contains an area of from 74 to 80 acres.

Sulisbury Camp occupies a plateau on the summit of a distinct hill which, partially escarped, covers an area of 22 acres.

The Wansdyke is shown in the map by shaded lines, and is also denoted by the letters A-B, C-D, E-F, G-H, I-K, L-M, N-O. The Wansdyke on the west of the letter A could not be shown, but it followed the Fosse-way a short distance, and then crossed it, taking a more westerly direction through Englishcombe to Stantonbury. The dotted lines between the letters B-C, D-E, etc., indicate its presumed position.

Between the letters B and nearly to C a cliff gives the line, as is also the case between E and F. The surface having been quarried between D and E the line cannot be traced, but between F and G, as also between H and I, the surface is barely sufficiently artificial to justify the assumption that the

Wansdyke took this course. The continuation of the dyke eastward of the Hampton Camp is in a great measure a matter of surmise, the surface of the cliff having been in great part quarried. Two series of dotted lines are given on the map, as it is difficult to ascertain the connecting link of the dyke between the fragment on the other side of the river Avon denoted by the letters L and M and the Camp. A little stream rises near the S.E. angle of the Camp and falls almost precipitously over the cliff. This stream is called in an old survey—"The land limits of Hampton," the "Mere broc." This stream is the present boundary of the parish, and from this circumstance it may be inferred that the Wansdyke followed the course of this stream, although it is more probable that it took the line indicated between K and L.

The Roman road known as the Fosse-way from Ilchester (Iscalis) appears to have avoided Aquæ Sulis and to have been carried partly along the Wansdyke, to the south of the latter city, on the lines shown on the map (the broken lines showing the unascertained way) through Hampton-down Camp, afterwards crossing the river and bearing away to the north. This road, which obtained a fabulous celebrity in the Welsh legends as having passed "from Totness unto Caithness," and which can be traced for some distance westward of Ilchester to the boundary of the county of Somerset, was the road to Cirencester (Corinium), and thence to a place called Stretton-on-the-Vorse near Leamington and another Stretton-on-the-Fosse in Warwickshire, not very far from High Cross (Venoniae) where it cut the course of the Watling Street, and so on towards Newark, and thence (still being known as the Fosse-way) to the Roman Colonia at Lincoln (Lindum). "The latest and most accurate surveys," says Gale, "have followed the Fosse from the Bath by

Walcote into Wiltshire* at the Shire stones; from thence it visibly takes its course by North Wraxall, Littleton Drew, Alderton, and Shearston, where the coins found seem to indicate a Roman station; then it passes by Easton Grey, and leaving Tetbury a mile-and-a-half to the west, enters Gloucestershire a little beyond Kemble," thus practically bounding the counties of Wilts and Gloucester till it reaches Siddington, and so on to Cirencester.

The Roman road from Caerleon (Isca Silurum) was the line of communication between the great fortress at Caerleon and Silchester (Caleva), and appears to have also neglected Aquæ Sulis, crossing the river to the north of the city and so to Hampton-down Camp, to Marlborough, Speen, Silchester, and London. The intermediate stations west of Aquæ Sulis were at the ferry (Sabrina) Sudbrook by Portskewet (Ports-is-cefn) and Bitton (Abone).

A branch of this road was continued on the north side of the river, avoiding both *Aquæ Sulis* and Hampton-down Camp, joining the road to Cirencester as also the road to London at Bathford.

The western portion of this road has been called the Via Julia or Strata Julia, and many ingenious guesses have been hazarded as to whether it was Julius Agricola or Julius Frontinus or some other public man of the Julian race who gave his name to this great military work. It seems, however, to be much more probable that the street derived its mediæval appellation from a fanciful derivation of the name of Strigul Castle (Castellum de Estrighoel) by Chepstow, in which name the monkish chroniclers found a reference to the first syllables of the words composing a Roman name.

^{*} Hearne's Leland, vi. 114.

It seems likely that Alexander Neckam (A.D. 1157-1217), whose verses are cited in Gale's Essay on the four great Roman ways, may have been the Author of the imaginary derivation.

"Intrat et auget aquas Sabrinæ fluminas Osca Præceps, testis erit Julia Strata mihi."

"I am apt to think," says Gale, "this Strata Julia came near Strigull Castle, the word Strigull, or Strigool, as it is also wrote, seeming to be formed from Strata Julia, the course of it also corresponding both to Oldbury and Caerleon.*

That Aquæ Sulis, an important city in Roman times, was in direct communication with the military roads, is apparent from the fourteenth route in the Antonine Itinerary. It is therefore evident that the original roads were at an early date diverted to include Aquæ Sulis in their route. The map shows these original lines of roads and their subsequent deviation. Hampton-down Camp is the centre to which they originally led, and the deviations were made to include Aquæ Sulis. These deviations are in the Fosse-way from the letter P to Q, and in the other roads from Q to R and S, and R to T, and these diverted roads were eventually the more frequented, to the total or partial abandonment of those through Hampton Camp.

The map is by no means complete, and consequently must be accepted as a sketch map to scale, although nothing has been indicated on it that it is not believed can be borne out by ancient roads or fences.

^{*} Hearne's Leland, vi. 130.

GEOLOGY.

REV. H. H. WINWOOD, M.A., F.G.S.

RESTRICTED in former times to narrow limits, and nestling around the vent of its hot mineral waters, the city of Bath has in subsequent times spread out in all directions, until the slopes of the surrounding hills are dotted with its crescents, villas, and houses, rising tier upon tier to their summits. One of the many English Avons, rising near Didmarton, flows through its midst, and receiving back again the waters of the Somerset Coal Canal, already united with those of the Kennet and Avon at Dundas, is navigable to the sister city of Bristol. Several small affluents contribute their quota to swell the main volume before it passes through the city. Four only of these are worthy of special mention as the chief agents in forming the physical features of the district, i.e., the Box, St. Catherine, and Swanswick brooks, and the Frome river. The first, taking its source in the romantic valley of Castle Combe, passes through Box and joins the Avon at Bathford, the second and third, bursting forth from the Oolitic plateau on the N. and N.W., flow into it at Batheaston and Lambridge respectively; whilst the Frome, the most important of the four, rises from the Greensand, near Stourton, and after a winding course northwards over very varied geological formations, and receiving several tributaries on its way through Frome and Farley, debouches into the Avon near Freshford, and so onwards through the celebrated Warleigh Valley.

Drainage of the district and general configuration. These four waters, with their numerous brooklets and feeders, constitute the main drainage of the district before their junction above Bath. Anyone standing on the spur of

Hampton Down, near the present rifle butts, can trace the course of these streams winding through their wooded and picturesque channels, ultimately combining to form the Bath basin widening towards the S.W. Here the geologist has before him the key to unlock the peculiar physical characteristics of the neighbourhood. either side, as he looks around him, he is struck with the uniform level of the ground; his eye ranges over an extensive plateau, bounded on the eastern horizon by the Chalk downs of Wiltshire; looking in another direction northwards, across the valley to Lansdown and Bannerdown, he notices the same table land extending as far as his eve can reach, till it is lost in the sky line; here and there certainly an isolated round-topped hill breaks the view, and seems apparently unconnected with the adjoining heights, but this is only an ocular deception, and closer inspection shows that it was originally one and the same portion of this table land, but in later times cut out of and separated from the main mass. Turning southwards, he sees a somewhat more rolling country, where this uniformity has been interrupted, the general level being affected by the underground irregularities and disturbances of the rocks, especially noticeable in the vicinity of the Mendip hills. What then does he gather from this panoramic view? this surely, that he is standing on the edge of a vast plain of marine denudation, and looking down into the valleys which have subsequently been worn down by subaerial agencies. The hills around the city and out of which the Bath basin has been carved, form

the southern prolongation of that great irregular band of Jurassic rocks, running diagonally across England, from Lyme Regis in Dorset, on the S.W., to Redcar in Yorkshire, on the N.E. As spurs and outlyers of the great Cotteswold range, they present the same peculiar features. The main line of our escarpment, jagged and indented with promontory and valley, faces the N.W., whilst the beds have generally a gentle dip to the S.E. Comparing the heights of our hills with those near Gloucester and Cheltenham, it is found that there is a gradual rise in the elevation of the latter, with a greater development of the Inferior Oolite; for whereas Lansdown is about 700 feet above mean sea level, Cleve hill near Cheltenham rises to a height of 1093 feet.

Before entering on the details of the Geology of Geology. the surrounding hills, it may be well to glance at the importance of the Mendip range, in connection with the physical features of the district. Stretching in a continuous line, nearly E. and W., from Frome to the Bristol Channel, it forms the base of a triangle, of which Tortworth is the apex. The core of these hills consists of Old Red sandstone, forming a saddle back, whence on each side the Carboniferous Limestone has been thrown off at angles varying from about 12° to almost the perpendicular. A broken irregular N.E. and S.W. line of this Limestone, with occasional exposures of Old Red, forms the highground overlooking the Severn flats, circling round to the N. at Tortworth, and then extending southwards towards Bath, and most probably continuing beneath the more recent covering of Mesozoic rocks onwards to the Mendip anticlinal on the south. Enclosed within this irregular ring of Palæozoic rocks, lie the Coal basins of Gloucestershire and Somerset, divided by anticlinal folds into the smaller coal fields of Bristol, Nailsea and Radstock,

26 miles in length from north to south, and 12 miles in breadth from Bath to Bristol. Bath is situated on the eastern edge of this Coal basin, and but few places probably in England can boast of so varied and interesting a geological locality; for within an easy day's walk no less than thirteem or fourteen formations can be traversed from the Mountain Limestone on the one hand, right through the series of the Coal measures and the overlying Triassic and Secondary formations, to the recent Post Pliocene and Alluvial deposits scattered here and there through our picturesque valleys.

As before stated, the Mendip hills appear to have played a very important part in modifying the Geology of the district; for whereas to the south of that range the thickness of the Mesozoic formation from the Trias to the Inferior Oolite has been estimated at more than 3,000 ft.; these same beds lying to the north within the basin have been calculated to attain the minimum thickness of 160 ft. The late Chas. Moore considered that this variation in the thickness of these deposits to the north and south of this range of hills was due to the probable presence of an old land area; the Mendips having been seldom, or perhaps never, entirely submerged within Rhœtic and Liassic times, and so acting as a barrier to the incursion of the waters which laid down these deposits so thickly to the south. Whatever may be the true reason of this difference, certain it is that the Mesozoic beds are abnormal in our district, forming as it were but a comparatively thin covering to the Coal Measures below, and presenting but a slight obstacle to the mining engineer in winning that valuable mineral for his economic purposes. This is especially the case in the Radstock area.

Carboniferous Limestone. Proceeding now to a more detailed description of the rocks forming the varied structure of our district, and beginning with the oldest beds laid down, the Carboniferous Limestones, though generally concealed by newer formations, there are many outcrops of these beds here and there in our immediate neighbourhood indicating their presence beneath; in every case they contain the usual fossils, *Brachiopods*, *Corals*, and *Crinoids*, and are found dipping at a more or less high angle towards the Coal basin inside. Besides the great mountain mass to the south, they crop up at Wickwar, Yate, Tynings south west of Codrington village, and at Wick; and, within close proximity to the city, on the northern slopes of Lansdown, at Granham, or Grammar Rocks. The exposure at this latter place presents the usual condition of solid blue beds, 150 ft. in thickness, and dipping at an angle of 55° W.N.W.

It has been stated by Chas. Moore (Wright's Historic Guide to Bath, p. 388) that in a fruitless attempt to sink for coal at Batheaston, in the year 1812, these rocks were there found at a depth of 334 ft.; but the details of that sinking, as given in Conybeare and Phillips (Geol. of Eng. and Wales, p. 262) does not bear out this statement. The depth of the shaft is there given as 287 ft., and the series of beds pierced through extended from the Lias to the new Red Sandstone. The thickness of the whole series of Carboniferous Limestone in this district may be set down as 3,000 ft. The Lower Limestone Shales, consisting of clays and shales alternating with impure beds of limestone, may be estimated as 500 ft. thick; the middle beds, composed of solid blue Limestones, about 2,000; and the upper Limestone Shales. alternations of Shale, Sandstone, and impure Limestone gradually passing up into the overlying Millstone Grit, about 500 ft. The Sandstone at Tytherington, called "Firestone" locally, is hardly distinguishable from Millstone Grit.

The Millstone Grit, or the miner's "Farewell Rock," estimated as 1,000 ft. thick near Bristol, is not so extensively developed in the Mendips, or near Bath. According to Mr. McMurtrie, between Coleford and Nettlebridge it does not exceed 500 ft. At Wick, where it is faulted against the Carboniferous Limestone, it is difficult to calculate its thickness. Lithologically, however, it corresponds with that at Bristol, and is very close grained and quartzose; frequently little rusty grains are scattered throughout, and it is seldom so coarse and conglomeratic in character as similar beds in the north. Besides the before-mentioned localities, it may be seen at Cromhall, Luckington, and Vobster.

Coal

We now come to the Coal Measures proper,

and will consider that portion only of the Measures. Coalfield in our own immediate districti.e., the southern basins of Somerset and Radstock, which are separated from that of Bristol and Gloucester by the Kingswood anticlinal. Only a small portion of these Measures are exposed at the surface, owing to the covering of the Secondary rocks which lie unconformably upon their upturned edges. Our remarks shall be based on Mr. McMurtrie's communications to the Proceedings of the Bath Natural History and Antiquarian Field Club, vols. i. and ii. Taking the Radstock district first, as the most important, about seven miles distant in a bee line from the city, we there find the strata tossed about and disturbed in every possible way, and consisting of two main divisions, an upper and lower, separated by a great thickness of Coal Measure

Sandstone, locally called Pennant—the upper, about 2,200 ft. thick divided into the first, or Radstock, series; and the second, or Farrington. The upper includes all the coal bear-

ing strata above the Pennant, and the lower all that between this latter Sandstone and the Millstone Grit. The first, or Radstock series, is divided from the second, or Farrington series, by from 500 to 700 ft. of unproductive ground, containing beds of red shale from 130 to 250 ft. thick, as highly coloured as Hæmatite. The Radstock series has eight veins, varying from q in. to 2ft. 4in., known by local names in all about 131/2 ft. thick, the beds being parted by bands of Shale and Sandstone. The second, or Farrington series, consist of six veins, from 1ft. 2in. to 2ft. 4in., and is about 101/2 ft. thick. The Coal of both these series is adapted for household use, the first series, however, being superior in quality to the second. None of these veins exceed 3 ft. in thickness, and many of the thin seams, which would not be considered worth the trouble of winning in the richer fields of the North are worked here at a profit.

Pennant Sandstone. This rock is peculiar to our district, for whereas the Coal Measure Sandstones in the North and Midland counties are more

evenly distributed throughout the various seams of coal, they seem here to be focussed as it were in one solid mass, estimated at 2,000 ft., consisting generally of thick beds of siliceous grit, sometimes very fissile from the mica which abounds in them. Coloured red at the surface, this colour does not permeate the interior, which is of a bluish grey tint, sometimes speckled with carbonaceous markings, and charged with the oxides of iron. It affords excellent stone for structural purposes, and is the best material for tombstones, for which it is largely quarried in the vicinity of our city. It may be well studied in the picturesque gorge of the Avon at Hanham, through which that river has cut its way to Bristol. Some interesting beds may also be seen at

the Mangotsfield Station, where a white quartz pebble band occurs, intercalated between the more solid beds; in the cutting of the Midland Railway, near Bitton; also at Frampton Cotterell and Iron Acton. Below this comes the Lower division of the Coal Measures, consisting of the third, or New Rock, and the fourth, or Vobster series, in all about 2.800 ft. The former is made up of 18 veins, ranging from 4ft. to 1ft. 6in., with a total thickness of 54 ft.; the latter of 8 veins, from 8ft. to 1ft. 6in., and 28 ft. in thickness. veins of the New Rock series are used for household purposes, and like those of the upper division, worked without danger from firedamp; but those of the Vobster series are more adapted for smelting purposes, and are extremely fiery, and much disturbed owing to their proximity to the Mendip Anticlinal. Two other smaller Coal basins have been worked close to our city, one to the east of Corston, at Newton St. Loe, called the "Globe" Colliery; and the other at Pennyquick Bottom, at Twerton, one mile south east of the "Globe" Colliery. Both of these belong to the lower division, and consist of coal of inferior quality. The former has been closed for a long period, and the latter was re-opened during the coal scare a few years ago, but only for a short time, proving an unprofitable speculation, owing to the disturbed condition of the beds and the consequent irregularity of the seams. These varied from 2 ft. to 5 ft. The total depth of the shaft was 861 ft., and it was sunk through the Lima Bucklandi beds of the Lower Lias—a quarry of that formation, and a few shale tips only now marking the site. these few details of the coal workings, the important basins in the Kingswood district and Golden Valley have been omitted, as they belong rather to the Bristol area. As to the characteristic fossils of the Somerset and Radstock Coal Field, Mr. Robert Kidston, F.R.S.E., F.G.S., who has permitted me to make use of his paper ("On the Fossil Flora of the Radstock series of the Somerset and Bristol Coal Field," Trans. Royal Soc. Edinb., vol. xxxiii., part. 2), states that from this area several of the species described by Brogniart were obtained, and that it is richer in fossil plants than any other coalfield in Britain—not only in the number of species it contains, but also in their excellent state of preservation. Besides the specimens in our Bath Museum named by Mr. Kidston, Mr. McMurtrie, of Radstock, possesses also a very fine collection of fossil plants from the Radstock series.

Before passing onwards it may be well to Faults. allude briefly to the faults, characteristic of the locality. Without attempting to explain the origin of the Mendip upheaval, it is a well-established fact, that had far-reaching consequences in the disturbed strata to the north in the neighbourhood of Nettlebridge and Wells, where the beds have not only been raised perpendicularly, but have actually been doubled back upon themselves, so that instead of dipping northwards they now dip southwards towards those hills. Resting upon the lower division, two masses of Carboniferous Limestone occur at Luckington and Vobster, beneath which there can not be any doubt that coal has been won. It is difficult, by any amount of complicated faults, to account for the abnormal position of these beds, otherwise than by an inversion from the Mendips, though this may possibly seem to some as a flight into the regions of romance. Mr. McMurtrie states that we seek in vain for anything analagous to it or approaching it in interest amongst the other coal fields of this country; and to find its counterpart, we must cross the Channel to the mining districts of Belgium and France.

Besides this now classical topsy-turvey disturbance, there are numerous faults and overlaps which may be briefly touched upon; they are found to occur chiefly in the Palæozoic rocks below, without affecting the Mesozoic covering above. Amongst the chief may be enumerated the greatest fault of the district, in the neighbourhood of Timsbury, Kilmersdon, and Clandown, called the Great or 100 Fathom Fault. has a down-throw to the west varying from 120 to 720 feet. The Farmborough Fault, with an up-throw or down-throw, it is difficult to tell which, of 600 feet; and the Overlap Fault, running parallel with the Mendips at Radstock, where it attains its fullest development. Mr. McMurtrie states that in the under surface of the upper strata of the part thrust forward, the fractured ends of the beds are frequently bent downwards,—the upper surface of the strata beneath being turned up, or forced into a succession of smaller overlaps, by the immense mass shearing above. (B. N. H. and A. F. C. "Proceedings," vol. i., p. 140). Between these clearly defined lines, there exists a thick layer of crushed materials of every kind.

Conglomerate. Next in ascending order comes what is called the "Red Ground," at the base of which is invariably found a more or less thick bed of Conglomerate, overlying the Coal Measures. This seems to be the first break in the orderly sequence of deposits, and from its position and contents, indicates a vast amount of denudation. From a bed of only a few feet thick in the centre of the Coal Basin, it increases to some 60 or 80 ft. southwards nearer the Mendips; the contained pebbles, also increase in size in the same direction from that of small marbles to rounded blocks 3 ft, in diameter. It rests, too, unconformably on the upturned edges of the Pennant, the Carbonifer-

ous Limestone and the old Red Sandstone, even mounting It is made up of the up to the summit of the hills. debris of the rocks on which it rests, including pebbles from the Old Red Sandstone and hollow nodules called "Potato Stones," lined with crystals of quartz and calc spar, Millstone Grit and Mountain Limestone, cemented together by carbonate of lime and magnesia; -hence its name, Dolomitic Conglomerate. Mr. Etheridge has called it the "Palæozoic beach of the Period," skirting the land at the time of its deposit, and rising higher and higher up its flanks as depression went on-It persistently occurs throughout the district, rarely more than 30 feet thick, and bears witness to that enormous erosion described so graphically by Prof. Ramsay; for when asked where all that mass of strata has gone to which is supposed once to have arched over the Mendips, the geologist points to this "old beach" and says "si quæris monumentum circumspice." A very fine section of this formation may be seen on the Bath and Evercreech line, between Midsummer Norton and Chilcompton; at Yate, too, and near Doynton, if the yellow Conglomerate there found similar to that at Clevedon be identical. Various opinions have been held as to the exact age of this Conglomerate, but by general consensus it may be now put down as indicating the coming in of the Keuper Sandstones and Marls; that formation which attains so great a thickness in the Midland Counties, and as Horace B. Woodward (Memoir, Geol. Surv., 1876) writes, "maintains the same relation to the Keuper Marl as the pebble beaches of the present day do to the sands associated with them."

Keuper Marls and Sandstones. Covering this pebble bed, and dovetailing with it, come the Red Sandstones and Keuper or Porkilitic Marls, red, grey, and green in colour, generally occupying the low-lying grounds, and affording fine subsoil for meadow and orchard lands; containing here and there veins of gypsum and celestine, but singularly destitute of fossils, and chiefly interesting as ground suitable for trial shafts to be sunk for the coal beneath. The estimated thickness north of the Mendips, is about 200 ft.; whilst to the south of these hills it is proved to be as much as 800 ft.

Immediately succeeding these marls, and form-Rhætic beds. ing the transition between them and the strata above, come those beds wherein our late distinguished geologist, Charles Moore, won his geological spurs; beds, in the investigation and working out of which he so lovingly toiled, and which have made our district so well and widely known-The upper portion of the new i.e., the Rhætic beds. Red Marls so insensibly graduate into these that it is very difficult to define accurately where one formation ends and the other begins. One fact is, however, certain, that a marked change in colour takes place from the red and green variegated Marls of the Keuper to dark grey or bluish Sandstones or Marlstones, and black shales and Limestones. There is also a great accession of organic life; for whereas the beds below are singularly destitute of any remains of the life of the period, those immediately succeeding are crowded with fossil remains of Mollusca, reptiles, fish, and with traces even of the higher Mammalia-the as yet earliest known formation in which these occur. The name Rhætic was given to this formation by Charles Moore, who was the first to correlate them with certain beds in Austrian Tyrol and the Rhætian Alps, which are of great thickness, and contain a similar fauna. We prefer to retain this name in our locality, though some geologists call them "Penarth beds," from the fact that these strata are so well developed in the headland of Penarth, near

Cardiff. Besides this important section, and other and perhaps better known ones at the Aust Cliff and Westbury-on-Severn, wherever cuttings are made through the Lower Lias sufficiently deep to the Keuper Marls below, these characteristic beds are opened up, and expose sections more or less thick, but rarely exceeding from 50 to 100 ft. (Mr. Moore says rarely more than 30 ft.) in our district. Besides the abovementioned sections, and others described by Mr. Moore in the Quart. Journ. Geol. Soc., vols. xvii. and xxiii., a most typical one was exposed during the construction of the Midland Railway between Bath and Mangotsfield, at Newbridgehill near the Weston Station on that line, giving the following succession of beds from the Red Keuper Marls, which were just seen at the N.W. corner, through the shales and White Lias to the Lima gigantea beds of the Lower Lias above:-

		Ft.	In.
Lower Lias, limestones, with brown and blue c	lay		
partings	***	12	0
Arenaceous shale, with ostrea liassica	•••	0	2
White Lias ("Sun bed,") divided by a filmy parti	ng		
of yellow clay	•••	I	IO
White Lias, more or less solid	•••	3	I
Rubbly White Lias, very fossiliferous	•••	5	0
Blue clay, marly stone, and reddish brown clay		I	0
"Landscape" stone, cream coloured and blue, so-call	led		
"Cotham marble"	,	0	$6\frac{1}{2}$
Blue and grey shales, with Marlstone	•••	8	5
Bone bed, dark pyritous limestone, resting on bla	ıck		
clays, and Keuper marls	•••	I	Oş

This section can be easily visited, being so close to Bath, and shows one of the best developments of the White Lias in the neighbourhood and has the advantage up to the present time of remaining fairly free from talus (vide "Proc." B. N. H. and A. F. Club, vol. ii., p. 208).

Another section, about 36 feet thick, on this line close to the Bitton station, (Journ. Geol. Soc., vol. xxiii., p. 498,) now nearly concealed, gave the same series of beds. Since then another small section has been recently discovered close to the Kelston station, where the White Lias is seen on the top of the embankment with only a thin covering of Lower Lias beds above (vide "Proc." B. N. H. and A. F. Club, vol. v. p. 224). Besides these sections close at hand, one must not omit to notice that remarkable Rhætic débris filling the fissures of the Carboniferous Limestone at Holwell near Frome; three cart-loads of which, when washed, by the persevering industry of Charles Moore, yielded 29 teeth of the Microlestes, fragments of nine genera of reptiles and of fifteen fishes, including 70,000 teeth of Lophodus, now enriching our Bath Museum. A very pretty instance of these beds squeezed up into a V shape or synclinal fold between the Dolomitic Conglomerate on one side and the Red Marls on the other, was until lately exposed in a cutting on the Bath and Evercreech line, just beyond the Chilcompton station, near Lynch House, (vide "Proc." B. N. H. and A. F. Club, vol. iii., p. 302.) A generalised section of these beds may be given after H. B. Woodward as---

"Sunbed"	•••	•••	•••	6 to 18 in.
White Lias Limestone	s	***	•••	10 to 20 ft.
"Landscape" stone or	"Cotham	Marble"		4 to 8 in.
Black Shales with bon	e beds	***		10 to 15 ft.
Greenish, cream-colour	ed and gre	y Marls pa	issing	
downwards graduall	y into the	Keuper	•••	20 to 30 ft.

It is impossible in the brief space allowed to give details of the contents of these beds, or to more than briefly touch upon the conclusions generally derived from the controversy that has been waged over them. But as our area has been the chief scene of the battle-ground, it may be stated that, formerly placed in a subordinate division of the Lias, they are now admitted to a distinct place of their own, or are placed on the top of the Keuper; that the White Lias, so named by William Smith, though it retains its original title, has been relegated to the beds below; and that the facies of the fauna of this formation indicates a shore line and brackish water; whilst in Austria it is more of a deep sea deposit. Amongst the characteristic shells are:—Pecten Valoniensis, Modiola minima, Cardium Rhæticum, Pleurophorus elongatus, Avicula contorta, Ostrea intusstriata, Crustacea (Estheria minuta); Fish:—(Sargodon Tomicus and Saurichthys acuminatus); Mammals:—(Microlestes antiquus or Moorei).

Resting upon the "Sunbed" of Wm. Smith Lower Lias. comes a thin band of yellow arenaceous shale crowded with Ostrea Liassica, and here and there dotted with fish scales. As this band, varying from one to two inches in thickness, is persistent in our district and may be traced wherever the White Lias is seen, it affords a good datum line to mark the coming in of new conditions,-the ushering in of the great age of Reptiles that must have swarmed when the lower beds were laid down. The change in colour and lithological character is very marked. The white close-grained stone gives place to flaggy brown, earthy, blue beds, with intermediate bands of yellow and blue clays, the whole presenting a "ribbon-like appearance," layer upon layer (hence probably the name of Lias given by the Somerset quarrymen) in continuous horizontal strata. The beds vary in thickness from a few feet to 200 or 300 ft., and in most of our local sections those beds whence the Saurian

remains at Street, near Glastonbury and elsewhere, have been obtained are wanting, and generally the Ammonites Bucklandi or Lima gigantea beds are the first to be found at the base. An exception may be made of the Newbridge Hill cutting before alluded to, where the Ammonites angulatus bed comes in. The upper clays of this formation occur everywhere throughout our basin, weathering to a brown or foxy colour on the top; and it was on this horizon that William Smith constructed the bed of the Somersetshire Coal Canal on the south side of the city. About forty in number these beds vary in thickness in every quarry, the lower portion consisting of irregular limestones with dark blue clay partings, the upper, generally brown, may be seen on both lines of railway from Bath to Bristol, Weston, Twerton, Saltford, and Keynsham, and in the cuttings of the line between Bath and Evercreech. We know also that they exist beneath the superficial covering of our valley. as proved in two memorable instances. A well sunk in 1838 in the western part of the City showed the following section :-

- I. Black Marl (upper blue marls of the Lower Lias) 50 ft.
- Thin beds of blue Lias, succeeded by blue Lias
 nearly solid, with White Lias below ... 40 ft.

A fruitless attempt to win coal at Batheaston in 1812 gave the following succession:—

- I. Upper Marls (Middle and Lower Lias) ... 210 ft.
- 2. True Lias beds, including White Lias, 10 ft. ... 47 ft. 6 in.

In both these cases it may here be incidentally remarked that water of a high temperature was found when the red beds below were tapped in the Kingsmead sinking at a temperature of 80°. The chief peculiarity of these beds in our district consists in the absence of the *Insect* and *Crustacean* and the *Saurian* beds that are more fully developed in the typical sections further south; and consequently the paucity of Saurian remains; a single vertebra, and portion of a jaw or tooth occurring here and there, but rarely the whole skeleton.

The Middle Lias is but poorly developed near Bath, consisting of a thin series of Clays and Marls. The Marlstone worked so profitably in other parts of England, and of such great thickness, being rarely opened up, but traceable along the escarpment of the hills near Bitton and Bath. It has been proved at Beechen Cliff, Lyncombe Vale, Monckton Combe, St. Catherine, Charlcombe, above Cranwells, and at the Bathampton reservoirs.

This, too, is rarely exposed in our district. Some years ago the following section, now entirely concealed by vegetation, was seen by the writer in company with Chas. Moore. It was on the right bank of the Avon opposite Dundas.

					ft.
I.	Blue Micaceous Marl with	thin no	dules of ironsto	ne	20
2.	Brownish Marlstone with	A maci	ılatus. Unicar	dium	
	cardioides, Lingula B	<i>eanii</i> al	oundant, Crust	acea	
	and Saurian teeth	***	•••		I
3.	Blue clay		•••	•••	3
4.	Upper Lias. A single bed	with A	. Walcottii, A.	Ser-	
	pentinus, &c	•••	•••	•••	I
5.	Gray clay		***	•••	2
6.	Inferior Oolite, sands of	•••			20

(Vide Som. Arch. and N. H. Soc. Proc., vol xiii., p. 153.) That rich fish and saurian bed which ought to come in above the Marlstone No. 2 is not represented here, as it is south of the

Mendips, near Ilminster, whence came that fine and unique collection of Icthyosauri, Pelagosauri, and Fish, now in the cases of the Moore collection at our Museum. It may be interesting to give here a typical section of Middle and Lower Lias beds, showing how remarkably they thin out in some localities. It is taken from a roadside section near Paulton.

				ft.	
I.	Middle Lias.	Various beds of rubbly Mar	istone	6	0
		Gray sandy bed with Leptano	t, ros-		
		trata. Foraminifera. Belei	mnites		
		clavatus. B. acutus, etc.	•••	0	5 ½
2.	Lower Lias	Stone with A. raricostatus	***	0	61
		Gray sand with Spirifer Wa	lcottii,		-
		& Gryphaa incurva, &c. Belen	mnites		
		(Gray sandy bed with Leptanu trata. Foraminifera. Belevalustus. B. acutus, etc. Stone with A. raricostatus Gray sand with Spirifer Wa Gryphæa incurva, &c. Belevalus &c.	•	0	6
3.	Rhætic-White	Lias, various beds	•••	10	0

We now pass on to the sands which come in Midford Sands. at the top of the Upper Lias, and at the base of the Oolitic series, and are so well developed around our city. They consist of yellow and micaceous sand, with bands of a tough, dense, arenaceous limestone called "Sand-burrs." These latter sometimes contain organic remains, and have been the subject of much controversy as to their classification; on the one side it is maintained that they are Liassic. on the other that they ought to be classed with the Oolites. Prof. Phillips has judiciously called them Midford Sands. a most appropriate name, indicative of their neutral position as passage beds between these two great formations, and as having been first studied by William Smith at Midford-a picturesque little village about 3 miles from Bath, where the "Father of English Geology" lived and worked. The late Chas. Moore considered them to be Oolitic, and adopted the nomenclature given to them by William Smith who named them "Sand of the Inferior Oolite." Evidently then, passage beds "they may (as H. B. Woodward says in his Memoir, p. 118,) very properly be considered as forming the natural base of the Inferior Oolite," constituting the lowest beds of the Lower Oolite Division. And here in passing we may state, that though much has been done of late years amongst these rocks, yet in the main but little alteration has been made in their stratigraphical order, since the time when William Smith laid down that important formula of the identification of strata by their characteristic organic remains, the great key to unlock the definite order of organic succession in the crust of this earth (vide Prestwich, Geology, vol. ii., p. 190). The division then laid down of the Lower Oolites into—

- 1. Cornbrash.
- 2. Bradford Clay and Forest Marble.
- 3. Great or Bath Oolite and Stonefield beds.
- 4. Fuller's-Earth.
- 5. Inferior Oolite.

still holds good, and marks the correctness of that great man's geological prescience. These sands were exposed in making the Bath and Evercreech Railway, the long tunnel between Bath and Midford being cut through them. At the S.E. entrance of the tunnel, on the Midford side, a good section may now be seen, the weathering having brought out the hard "sand-burrs" into marked prominence. The thickness may be estimated at 150 ft., or somewhat less. Beechen Cliff, whence is the best bird's-eye view of the city, is another good place to study them. They may also be seen cropping out under Beacon-hill, on the opposite side; at Charlcombe, too, they appear about 70 ft. thick. At the furthest end of the tunnel, beneath Devonshire-buildings,

they measure about 30 ft. Though but rarely exposed, they are persistent round our hills; yet at Wellow, a short distance beyond Midford, they thin out, and the Inferior Oolite limestones rest immediately upon the Lias, (vide "Proc." Bath Nat. Hist. and A. Field Club, vol. iii., p. 133.)

Directly overlying the Sands is a peculiar conglomeratic or nodular bed, from 18 in. to 1 ft. thick, very fossiliferous, containing the characteristic shells of the Inferior Oolite—e.g., Rhynconella spinosa, Trigonia costata, Astarte excavata, Ammonites Brochii, etc., succeeded by other limestone beds of the same group, averaging about four feet in thickness in the particular section before-mentioned, eastwards of the tunnel, under Devonshire-buildings. We, however, seek in vain for that great development which is found in the Cheltenham district, where the Freestone beds, affording the principal building stone, alone measure some 100 ft. The Trigonia bed; Gryphæa bed; Ragstones; Flaggy Freestone; Fimbria bed, Freestone and Ferruginous Peagrit. measuring more than 200 ft. together, are here in our district comprised in, at the most, 50 or 60 ft.; sometimes much less, as at the well-known section at Vallis (De la Beche, "Mem. Geol. Survey, vol. i., p. 288), where thin beds, a few feet thick, rest upon the planed down upturned edges of the Carboniferous Limestone. Mr. H. B. Woodward divides the beds into:-

		ft.
I.	Soft Freestone, more or less oolitic	40 to 50
2.	Rubbly stone, consisting principally of corals	IO
3.	Hard brown limestone, abounding with casts	
	of shells	6

The Inferior Oolite follows the course of the Avon on both

sides, runs up to Freshford and Limpley Stoke, where it may be seen on the banks of the Canal, and has recently been well exposed in the Railway cutting just beyond Midford Station; it occurs on Sion and Beacon hills, and near Charlcombe. At Lyncombe and Beechen Cliff the rock, as Moore states, is almost composed of *Corals, Trigoniæ, Ostreæ, and Brachiopoda*.

Separating these beds from the Great Oolite Fuller's Earth. above, comes a thick deposit of clay. It can be traced all around our hills just below the top by the undulating nature of the sloping ground, caused by the running down in wet weather of the intervening clay, or the slipping over of the solid beds above on the greasy unctious beds below. is yellow and blue in colour, and has generally near the middle a bed of nodular earthy limestone, called "Fuller'searth Rock," but feebly developed in our neighbourhood. The total thickness around our hills is about 150 ft. Lately important works have been opened on the south of the basin, near Midford and Combe Hay, for the yellow earth, considered the most valuable for economic purposes. It is important, too, as being a water-bearing bed around our hills, throwing out from its surface the drainage of the Great Oolite above, and forming the upper belt of springs in our district. The characteristic fossils are—Ostrea acuminata, Waldeimia ornithocephala, and Rhynconella varians, with several new forms of Ostracoda, lately described by Professor Rupert Iones and Mr. Sherborn in "Bath Nat. Hist, and A. F. C. Proc.," vol. vi., part 3, p. 249.

Great Oolite. The Great Oolite, for which Bath is so famous, and hence often called "Bath Oolite," caps all our hills, which are in some places, especially on the south, completely honey-combed with old

and modern workings, extending for miles underground. Consisting of beds of shelly limestones and fine freestones, it may be divided into

Upper Rags. { r. Coarse shelly limestone. 2. More or less fine Oolites. 3. Tough brown argillaceous Limestone.					
Fine Freeston		10 to 30			
Lower Rags.	Coarse shelly limestones	10 to 40			

Near Gloucester and in Oxfordshire the Great Oolite thins out to 60 ft.

In the quarries, the most celebrated of which are situated at Box, Farley, Hampton, and Combe Down, the workmen generally leave one of the "Rag"* beds-a hard, tough, shelly limestone-to form the "roof," as less liable to give way, and work out the softer and finer-grained beds beneath. leaving another "rag" bed as the floor. The stone, when first cut in its green state, is quite soft, and of a warm, yellow colour, but hardens and whitens much by exposure to the air and the evaporation of the moisture. It has been stated that a cubic foot of Bath stone will absorb one gallon of water. The spherulitic granules or eggs (whence its name), of which the rock is composed, have often been examined microscopically, and usually fail to present any organic structure, consisting merely of concentric films of carbonate of lime. The beds so much used in building are not by any means highly fossiliferous, though here and there minute mollusca and a stray palatal tooth occurs. But on the Cotteswold hills, particularly at Minchinhampton, they are especially rich in fossils. The absence of organisms indeed renders them the more easy to work; but the beds which form the "roof"

^{*} Rag is a term used by the workmen for those beds containing shells, and less easy to work.

and "floor" of the workings, abound in shells and corals. The upper beds on Hampton rocks are so rich in remains that Charles Moore used to say "They were alive once," and from them he gathered a rich collection of sponges, polyzoa, corals, and brachiopoda, now in our Museum. From the upper beds on the opposite side, Mr. Walton obtained his Microsolena. Indeed, the upper beds, as developed especially on the Farley Down escarpment, seem to be one great coral reef. Some very good instances of false bedding or current action occur, especially near the top of the hill overhanging Warleigh Manor in the Avon valley, and in the quarry on Banner Down. The quarries on Combe Down have the character of containing the best weathering stone, and Mr. H. B. Woodward tells us that the stone from Lodge Hill, Combe Down, was selected for the restoration of Henry the Seventh's Chapel, whilst the stone from Baynton quarry was used in the construction of Windsor Castle, and that from Drewe's quarry in building Buckingham Palace. The following is a section of Baynton Ouarry:—

				ft.	
Rubble Stone	•••		• • •	16	
Scallet (finest grain	used for As	hlar)		12 to	152
Black and white rag	···	•••	•••	5 ,,	10
Corn grit (used for	Dressings)		•••	15,	20
Ground stone		***		16	22

The Bradford Clay, a local deposit, so-called from its development at Bradford, near Bath, comes next. It may be considered as forming a portion of the Forest Marble, being hardly distinguishable from the bands of clay intervening between the shelly limestone beds, where this formation is more fully developed than it is on our hills. It consists of a pale-blue

clay, from 60 to 80 feet thick, lying upon the white upper limestone of the Great Oolite, and contains the celebrated Pear Encrinite (Apiocrinus rotundus) which seems to have once extended in a great colony over the bottom of the sea at that time, as stems and roots of this crinoid are found attached to the surface of the rock. It is very difficult to obtain perfect specimens now of this interesting fossil, and the magnificent collection which once adorned the cabinet of Mr. Channing Pearce in the Circus, and was obtained by him at so much cost and labour, has, it is to be regretted, found a resting-place in London, far away from its local habitat. The other fossils found in this clay occur also in the overlying beds of the Forest Marble.

This is comparatively thin around our hills, rarely exceeding 100 feet, though it is much thicker (450 feet) at Abbotsbury, in Dorset, and in the Forest of Wychwood, whence it was named by Wm. Smith. Some of the shelly beds, composed almost entirely of a small ostrea, are compact enough to be polished, and used for marble; whilst the more flaggy beds have been utilized until quite recently for roofing tiles. The numerous irregular pits near Grenville's Monument, on Lansdown, indicate where these fissile slabs have formerly been excavated. Lonsdale has divided this formation into the following beds:—

	· ·	
		ft.
I.	Clay with occasional laminæ of grit	 15
2.	Sand and grit	 40
3.	Clay with thin sla! s of stone and laminæ of grit	 10
4.	Shelly limestone or coarse Oolite	 25
5.	Sand or sandy clay and grit	 10
6	Bridford clay	

Bradford clay

The sandy beds called "Hinton Sands" are largely developed at Charterhouse Hinton and contain concretionary

and spheroidal masses of dense hard grit more or less calcareous. We may here note that the Great Oolite on Lansdown varies very much from that on the other side of the valley; all the softer and more workable beds are absent, and some 20 ft. only of a denser, harder rock called "Bastard Oolite" good for rough walling and rustic building, come in. The characteristic fossils are Terebratula digona; T. coarctata common to this and the Bradford clay, T. maxillata and Avicula echinata. Tracks of annelids are found in the sandy films of some of the beds and the dotted markings of a crustacean, or, as Prof. Phillips thought, the indentations left by the progress of some bivalve opening and shutting its shell.

With this formation we take leave of our hills, as the Cornbrash is rarely found in our immedate district, though a faulted mass appears near Westwood; it will, however, be necessary to record a few surface or superficial peculiarities.

Tertiary period. Indications of the Tertiary period are found on both sides of the Warleigh valley, but especially on the Bathford side, where on the top of Farley Down, 629 feet above the Avon, overhanging that picturesque village, a large mass of Tertiary flints was described by the writer ("Proc." B. N. H. and A. F. Club, vol. iv., p. 82), filling one of the numerous joints in the Great Oolite; veins of these rounded flints are also sometimes found running down the fissures of the underground quarries—remnants of the Tertiary period, if not of the Chalk which may have once covered our hills. Conybeare also alludes to transported Chalk flints, as covering the higher grounds on the Bathampton side. These fissures have been found to contain bones of Bison, Ox, Horse,

Deer, Lemming, Arvicola, Sorex, Bat and Frog, specimens of which have been deposited by Chas. Moore in the top cases of the gallery at the Bath Museum.

Springs. From the porous and fissured nature of the rocks, with their intercalated bands of marl and clay, forming the nucleus of our hills, abundant springs burst forth on their slopes. Generally, however, there are two zones, whence our chief supplies are obtained. The upper source issues from between the Great Oolite and the Fuller's-earth Clays beneath, copious at certain seasons, but liable to be readily affected by the climatic conditions prevailing at the time; the lower one, however, bursting forth between the Sands at the base of the Inferior Oolite and the impervious Lias Clays, is both more constant and abundant, and less liable to sudden fluctuations.

As regards the Hot Mineral Waters of our City, issuing in such volume and at so high a temperature (117 Fahr.), from the bottom of the basin, the source whence they come cannot so easily be traced; suffice it to say, that the generally received opinion is, that they well up from great depths, probably through some fracture or fissure in the Palæozoic rocks, which lie beneath the horizontal covering of New Red and Lias. It may be of interest to give here a section of the beds which were cut through in excavating for the foundations of the Grand Pump Room Hotel.

Made ground, or accretions from the time of the Roman occupation, including pockets of brownish marl, containing many bones of frogs, fish, and other remains, and insects 8 o
Drifted marl with vegetable matter, wood, &c., lying on the Roman foundation ... 4 o

Fresh water Alluvial clays with great numbers of fresh							
water and land shells	s, seeds, &c.	•••		8	0		
Mammalian gravel	•••		•••	4	0		
Lower Lias, a series of	alternating	beds of bl	ue clay				
and stone			***	36	7		

(Chas. Moore, B. N. A. and A. F. Club, vol. ii., p. 44, 1869.) Beneath the Alluvial covering of our valleys, River Gravels. deposits of gravel are found at varying heights above the present river, both in the main valley and those of Box and Limpley Stoke, joining it from the N.E. and E. Several beds have been opened up from time to time, at Freshford, Larkhall, Bathampton, Twerton, and at Victoria gravel pit on the Midland Railway. The beds at this latter place attain the highest elevation of any hitherto worked, being over 100 ft. above the present river. All these pits have yielded Mammalian remains, Elephas primigenius, and antiquus, Rhinoceros tichorinus, Bos primigenius, Equus caballus: and at Freshford was found Ovibus Moschatus and Reindeer. But nowhere as yet has the most careful research been rewarded by the finding of any implements of human manufacture associated with those extinct animals in our immediate district. Varying from 4 to 10 ft. thick, these gravels rest generally on an eroded surface of Lower Lias clays. At Freshford, however, they lie in a trough excavated in the Inferior Oolite, and are made up chiefly of the Lias and Oolite of our hills, with sub-angular and rolled Chalk flints and Greensand-chert, the latter more sparsely represented. Associated with these are Millstone Grit, Old Red, and Mountain Limestone from the more distant Mendips. (Vide "Proc." B. N. H. and A. F. Club, vol. vi., p. 331.)

Space does not admit of a more detailed description of

the Geology of our district. The accompanying map has been especially prepared for this meeting of the British Association, under the superintendence of Horace B. Woodward, F.G.S., who has kindly furnished the writer with the following list of the localities where the sections can be seen. Most of these have, however, been already included in the text.

LOCALITIES WHERE SECTIONS ARE TO BE SEEN.

Alluvium .- Lower portions of Bath.

Valley Gravel and Brickearth.—Freshford Station; Bathampton Station; Bath; between Saltford and Keynsham.

Chalk.- Near Westbury (Bratton White Horse), &c.

Upper Greensand .- Devizes; Westbury.

Gault. - Brickyards at Westbury; and by Canal Locks west of Devizes.

Kimeridge Clay. - Brickyard north of Coulston.

Coraliian Rocks.—Westbury (Iron-Ore, Coralline Oolite); Steeple Ashton (Coral Rag); Seend (Lower Calcareous Grit); Westbrook (Lower Calcareous Grit, Coral Rag); Calne (Lower Calcareous Grit and Calne freestone).

Oxford Clay.—Brickyards at Road; Studley and Islington near Trowbridge; near Seend Bridge; Bromham Common; S. E. of Chippenham; Dauntsey Station; formerly in cuttings near Christian Malford (now obscured).

Kellaway's Rock.— South of Upper Studley, and Brickyard north-west of Trowbridge Station; by Canal south of Chippenham; in banks of streams about half-a-mile south of Kellaways; brickyard by the 6th milestone between Chippenham and Malmesbury.

Cornbrash.—Berkley, near Frome; Road; Hilperton; Semington; Thingley, near Corsham; Chippenham; Hardenhuish; and east of Biddestone; Stanton St. Quintin and Corston, near Malmesbury.

Forest Marble.—Frome; Buckland Downs, and above Highwood Farm near Hemington; west of Laverton; between Norton St. Philip and Charterhouse Hinton (Hinton Sandstone); Norris Hill, between Road and Westbury (Hinton Sandstone); north-west of Atford; near Giddy Hall; north-west of Biddestone; Upper Castlecombe; Malmesbury Station; Badminton.

Bradford Clay.—Bradford-on-Avon (south and south-west of Station); Corsham Railway Station; Brickers Barn, north of Corsham; lane by church at West Keynton.

Great Oolite.—Odd Down; Combe Down; and Bathampton Down; Lansdown; Banner Down; Box; Kings Down; Farley Clump; Bradford-on-Avon; Limpley Stoke; Corsham; Yatton Keynell; &c.

Fuller's Earth.—Economic products worked at Midford Castle, Combe Hay and Wellow.

Fuller's Earth Rock, etc.—Egford Bridges, near Frome; drainage works north of Frome, and Oldford, Frome; between Hassage and Lower Baggeridge, south-east of Wellow; east of Duncorn Hill; lane from Widcomb to Comb Hill; Lansdown (near Wesleyan College).

Inferior Oolite.—Beacon Hill, Bath; east of Charlcombe; west of High Barrow Hill; near Severcomb Farm, north of Dunkerton; Midford Railway, south of Station; Dundas; Clan Down; Dundry, &c.

Upper Lias .- Devonshire Buildings, Bath.

Middle Lias .- Upton Cheyney, near Bitton.

Lower Lias.—Weston; Pennyquick, near Twerton; Keynsham; Timsbury; Paulton; Radstock; Downside, near Broadfield Down, (like Sutton Stone).

Rhætic Beds.—Weston; Kelston; Willsbridge, near Bitton (Station);
Midsomer Norton; Radstock, &c.

New Red Marl. - Weston; near Radstock, &c.

Sandstone .- Chew Magna; Brislington.

Dolomitic Conglomerate. - Clifton; Chilcompton; West Harptree.

Coal Measures. - Pensford; Clutton; Brislington; Hanham; &c.

Millstone Grit.-Vobster; Leigh Down, near Winford; Clifton.

Carboniferous Limestone.—Wick Rocks; Tytherington; Clifton; Vallis, near Frome; Ebber, near Wells, &c.

Old Red Sandstone. - Avon gorge; Mendips.

Eruptive Rocks.-Beacon Hill and Down Head.

METEOROLOGY.

REV. H. H. WINWOOD, M.A., F.G.S.

A T the meeting of the British Association in Bath, during the year 1864, the Rev. Leonard Blomfield (then Jenyns) read a paper before Section A on the "Temperature and Rainfall of Bath." After first describing the sources of his information, he gave the following as the results of his observations:-That having at various times compared the temperature at Bath during periods of unusual heat or cold with what it had been at other places on the same days, more especially with the temperature recorded at Greenwich, Cambridge, and Nottingham, he found that on an average the maximum temperature in extreme seasons had been 5° lower and the minimum 5° higher at Bath than elsewhere. He went on to state that, in his opinion, the hills surrounding Bath had a very important effect in moderating the heat of summer and in tempering the cold in winter. The fact, too, of the position of the city in a basin may cause that oppressive feel of the atmosphere in calm and sultry weather, which would be relieved by an ascent to the high plateau above. Passing from the temperature to the rainfall, he stated that the average annual fall in the town at a height of 90 ft. above sea level was 31'97 inches. One of the many beneficial results from that meeting was the determination of the Committee of the Royal Literary and Scientific Institution to at once commence systematic meteorological observations. Accordingly, at the advice and under the direction of Mr. Jenyns, an observatory was erected in as suitable a place as could be found

in the Institution Gardens, and a daily register has been kept from the year 1865 to the present date. From time to time, at the end of the decades, the results of these observations have been tabulated and presented to the members of the Bath Natural History and Antiquarian Field Club, and published in their "Proceedings" (vols. i., iii., v., and vi.). On these the following remarks are based:-" The observations of the thermometer and rain-gauge have been carried on during a period of twenty years—i.e., from the year 1866 to the end of 1885; those of the barometer relate to a period only of eleven years. From the tables it appears that the mean height of the barometer from 1875 to 1885, corrected to temperature of 32° and sea level, was 29'976 inches. The highest barometer occurred on January 18th, 1882, when it was 30.978 inches; the lowest was 28.337 inches on December 4th, 1876."

The following Table will show the seasons at which the maxima and minima occurred:—

	Spring.	Summer.		Autumn.	Winter.
Maxima .	1	 0		2	 8
Minima	I	 0		3	 7
	_	_			_
	2	 0	•••	5	 15

So that, from these eleven years' observations, it appears that the maxima elevations and minima depressions both occurred in the winter months.

The Thermometrical observations extended from the year 1866 to 1885 inclusive, with the following results:—Mean temperature for twenty years, 50°.5. The highest mean temperature occurred in the year 1868, when it was 52°; the lowest mean was in 1879, when it fell to 47°.5. The following Table gives the mean temperature and the range of the seasons:—

SEASONS.	MEAN.	HIGHEST.	LOWEST.	RANGE.
Spring	48·4	51.2	45.8	5.4
Summer	60.3	63.2	58·1	5.4
Autumn	50.7	52.3	48.5	3.8
Winter	41.4	46.3	36.4	9.9

The hottest summer was in the year 1868, when the thermometer rose to 90.5 in the month of July, whilst at Greenwich, on the same day, the maximum was 96.5. The next hottest summer was in the year 1876.

The mean winter temperature for the twenty years is the following:—

WINTER.	Mean Temperature.	WINTER.	Mean Temperature,
1866-7	42.7	1876-7	46.1
1867-8	40.8	1877-8	42.8
1868-9	46.3	1878-9	36.4
1869-70	38.9	1879-80	37.5
1870-1	38.0	1880-1	39.0
1871-2	42.6	1881-2	43.0
1872-3	41.1	1882-3	43.6
1873-4	42.1	1883-4	44.8
1874-5	39.0	1884-5	43.4
1875-6	41.5	1885-6	38.1

From this it appears that 1878-9 was the coldest winter, and the next coldest the winter following. Thirteen out of the whole series had a mean temperature above 40°; hence the conclusion that the Bath winters are generally mild.

RAINFALL.

The results of the twenty years' observations on the rainfall—i.e., from the year 1866 to 1885,—show that the mean annual fall was 32'064 inches. The greatest amount of rain registered during the whole period was 42'294 inches in 1882, and in no other year did the fall attain to 40 inches. The driest year was 1870, when only 20'982 inches were registered, the next driest 1873, when the amount was 24'890 inches. It was also remarked that dividing the twenty years into two decades, the first may be called the dry one, the second the wet.

SEASONS.	MEAN.	MAXIMUM.	MINIMUM.
Spring	6.056	10.848	2.737
Summer	7.633	15.283	2.292
Autumn	10.008	14.302	4.227
Winter	8.785	13.388	4 830

From the above Table of the variation during the seasons, it follows that autumn is the wettest and spring the driest season in Bath. January, Mr. Blomfield considers to be the wettest month in the year, though September or October approach very near to it.

THE BOTANY OF THE BATH DISTRICT.

W. G. WHEATCROFT.

THE neighbourhood of Bath offers many attractions to the botanist. So long ago as the reign of James I. Matthias de Lobel, who styled himself "Botanist to King James," published his "Stirpium Historia," in which certain plants found in the Bath district are enumerated. A few species are mentioned in Collinson's "History of Somerset," published in 1791. A longer list of the rarer plants, by Mr. Sole, was appended to Warner's "History of Bath," published in 1798. Mr. Sole, a former resident in this city, was a distinguished botanist in his day. In the year 1798 he published an important work on the "Mints of Great Britain," illustrated by 24 engravings, many of which, as we are informed, "were taken from Bath specimens." Mr. Sole likewise wrote a valuable work on "The English Grasses." It appears that this latter book was never published. A single copy belonging to the Bath and West of England Agricultural Society, in the keeping of the Bath Literary and Scientific Society, is, as we are informed, by the Rev. Leonard Blomefield,* probably the only copy extant. The same veteran naturalist also tells us "that a large number of these grasses appear to have been gathered in the neighbourhood of Bath." In a small edition of Warner's "History of Bath," a list of Bath plants, contain-

^{*} The Rev. Leonard Blomefield, M.A., F.L.S., F.G.S., will be better known to many by the name of the Rev. Leonard Jenyns, the author of "A Manual of British Vertebrate Animals," and other works.

ing 191 species, and including many cryptogams, is given. This list was supplied by the late Dr. Davies, of this city. The works of most use to the Bath botanist of to-day are the "Flora Bathoniensis," by Professor Babington, published in 1834, and the supplement thereto, published in 1839. The number of species given in these works is 756. Mr. Blomefield, in the course of a very interesting and able lecture on the "Bath Flora," delivered to the members of the Bath Natural History and Antiquarian Field Club, states that "many of these are unquestionably mere varieties of others, while a few appear to have become extinct, if they ever grew in the localities assigned to them, and some other species were not mistaken for them." For the convenience of those who possess, or have access to, the "Flora Bathoniensis" and the Supplement thereto, there are appended, with the kind permission of Mr. Blomefield, two lists prepared by him. The first of these shows additions to the Bath Flora since the publication of the Supplement, and the second gives a list of plants which have either become extinct in the Bath district or were probably inserted in the Bath Flora "by mistake." It is to be regretted that the Rubi, Rosa, and Salices, have not been fully worked out. Few things would, at the present time, be more acceptable to local botanists than a full and critical Flora of the Bath district. In a work like the present, it seems desirable to give a list only of the rarer and more interesting plants of the district, arranged in accordance with the third edition of "The Student's Flora of the British Islands," by Sir J. D. Hooker; referring to the Flora and Supplement before-mentioned for particulars as to the localities in which the plants may be found. A copy of Prof. Babington's Flora and Supplement, as well as one of "Flora Bristoliensis," will be found in "The Jenyns Library," at the Institution.

The two great factors in the geographical distribution of plants-climate and soil-have secured for the Bath district. a tolerably rich, but not very uncommon Flora. As the Geology of this district is fully treated of in a previous chapter, it is only necessary to observe, that, belonging as it does chiefly to the Great Oolite, which forms the uppermost stratum of the surrounding hills, and the Lias which occupies most of the valleys, the Flora of Bath is not so diversified as that of Bristol, where a larger intermixture of the older rocks, the presence of a tidal river, of salt marshes and brackish ditches, afford habitats for several maritime plants, which are not to be met with in the Bath district. For these reasons, it is not surprising that the Bristol Flora numbers some fifty plants more than that of Bath. There is, however, one locality in the neighbourhood of Bath, the well-known Wick Rocks, distant some four miles from the city, where the plants are somewhat peculiar, owing to the presence of the Carboniferous Limestone. There are few places in the vicinity of Bath so well worthy of a visit by the botanist as this. pedestrian will reach it in the shortest time, by travelling by the Midland Railway to Bitton or Warmley: a walk of halfan-hour from either station will bring him to the Rocks.

Three plants growing in the neighbourhood of this city, seem to call for special notice. These are Euphorbia pilosa, L., Lysimachia thyrsiflora, L., and Ornithogalum pyrenaicum, L. Lobel, writing in 1576, describes the first of these plants under the name of Esula major Germanica, and speaks of it as plentiful "in a wood belonging to John Coltes, near Bath." It is unfortu-

nately far from plentiful there now. There has been much controversy as to whether this interesting plant is indigenous here. Although so eminent an authority as the late Mr. H. C. Watson described it as "an alien or denizen," and it has been suggested that it "may have escaped from the neighbouring grounds of the Prior of Bath, or from the Physic Gardens of the herbalists of this city," there is something to be said against the accuracy of this theory. It must be borne in mind that Lobel, writing more than 300 years ago, speaks of this plant, as he does of other wild plants of the neighbourhood, as growing plentifully in Coltes' wood. Mr. Blomefield, referring to the escape theory, observes "Though this might have been the case with the plants growing in the station in the lane near the town, it seems hardly likely with respect to those on the Down, which is so much further off." Mr. Blomefield has informed the writer that he and the late Mr. C. E. Broome found this plant growing plentifully in the wood named, some twenty years ago, and he further observed that the scarcity or otherwise of its appearance in this wood depended very much, in his experience, on the condition of the underwood. With reference to Lysimachia thyrsiflora, Mr. Blomefield observes "With regard to Lysimachia, Professor Babington is of opinion, that it was originally planted by some cultivator of rare species; but without further evidence of this, the improbability of its having been brought, as it must have been, from a considerable distance to be set in a pond, not in a private garden, but in an open field remote from the City, is against such a supposition. Whatever may have been its origin, it is perfectly naturalised there now, though, perhaps from the effect of dry seasons, there has been very little seen, as I am informed, the last two or three years."

Ornithogalum pyrenaicum, L., grows so plentifully in woods and thickets near the city, that it may fairly be said to be extremely common. The young flower spikes of this plant, made up into small bundles, are sold in our market in the spring as "Bath Asparagus." It is a tender and eatable vegetable, but the writer has been unable to discover any great resemblance in flavour to the highly and deservedly esteemed plant, the name of which has been bestowed upon it by some Bathonians in the past and present. There may be room for differences of opinion in this as in other matters of taste. It may here observed that Mercurialis annua L, whose census number is 42, is sadly too common in the gardens of this city.

Botanists staying in Bath should not fail to visit the Botanic Garden in the Victoria Park.* Though only laid out and planted within the year the garden is already a most attractive spot, and promises to be well worthy of the distinguished Botanist and Mycologist whose name it bears.

LIST OF THE RARER AND MORE INTERESTING PLANTS GROWING IN THE BATH DISTRICT.

Ranunculaceæ.

Clematis Vitalba, L.
Thalictrum flavum, L.
Ranunculus Lingua, L.
hirsutus, Curtis
parviflorus, L.
Helleborus fœtidus, L.
H. viridis, L.
Aquilegia vulgaris, L.

Nymphæaceæ.

Nuphar luteum, Sm.

Papaveraceæ.

Papaver Argemone, L. P. dubium, L.

Cruciferæ.

Nasturtium palustre, D.C. Arabis hirsuta, Br. A. perfoliata, Lamk. Senebiera didyma, Pers. Lepidium campestre, Br. Thlaspi arvense, L.

Resedaceæ.

Reseda lutea, L.

Caryophylleæ.

Silene anglica, L. Stellaria palustris, Ehrh. Sagina apetala, L.

Hypericineæ.

Hypericum Androsæmum, L. H. quadrangulum, L. (in part) Fries.

Malvaceæ.

Malva moschata, L.

Geraniaceæ.

Geranium pratense, L. G. perenne, Huds. G. rotundifolium, L. G. pusillum, L. G. columbinum, L.

G. lucidum, L. Leguminosæ.

Ulex nanus, Forster
Trifolium subterraneum, L.
T. arvense, L.
T. medium, Huds.
T. striatum, L.
T. scabrum, L.

Vicia sylvatica, L. V. bithynica, L. Lathyrus Nissolia, L. L. sylvestris, L. L. macrorrhizus, Wimm.

Hippocrepis comosa, L.

Rosaceæ.

Geum rivale, L. Potentilla verna, L. Poterium officinale, Hook

Saxifrageæ.

Saxifraga granulata, L.
Chrysosplenium alternifolium,
L.
C. oppositifolium L.

Crassulaceæ.

Cotyledon Umbilicus, L. Sedum Telephium, L. S. album, L.

Onagrarieæ.

Epilobium roseum, Schreb.

Cucurbitaceæ.

Bryonia dioica, L.

Umbelliferæ.

Bupleurum rotundifolium, L. Carum segetum, Benth. Cicuta virosa, L. Enanthe fistulosa, L. E. Lachenalii, Gmel. E. fluviatilis, Colem. Caucalis daucoides, L.

Cornaceæ.

Cornus sanguinea, L.

Caprifoliaceæ.

Viburnum Lantana, L. Sambucus Ebulus, L.

Rubiaceæ.

Galium Cruciata, Scopoli. G. Mollugo, L. G. tricorne, With Asperula cynanchica, L.

Valerianeæ.

Valeriana dioica, L. Valerianella dentata, Poll.

Dipsaceæ.

Dipsacus pilosus, L.

Compositæ.

Erigeron acre, L. Solidago Virgaurea, L. Inula Conyza, D.C. Helenium, L. Bidens tripartita, L. Artemisia Absinthium, L. Senecio crucifolius, L. S. saracenicus, L. Serratula tinctoria, L. Cnicus eriophorus, Hoffm. C. acaulis, Hoffm. Onopordon Acanthium, L. Silybum marianum, Gærtn. Cichorium Intybus, L. Picris echioides, L. Hieracium umbellatum L. H. boreale, Fries. Lactuca muralis, Fresen.

Campanulaceæ.

Campanula Trachelium, L. C. glomerata, L.

Monotropeæ.

Hypopithys multiflora, Scop.

Primulaceæ.

Lysimachia vulgaris, L. L. Nummularia, L. L. thyrsiflora, L. Anagallis tenella, L.

Apocynaceæ.

Vinca minor, L.

Gentianeæ.

Chlora perfoliata, L. Erythræa Centaurium, Pers. Gentiana Amarella, L. Menyanthes trifoliata, L.

Convolvulaceæ.

Cuscuta Europæa, L. C. Trifolii, Bab. C. Epilinum, Weihe.

Solanaceæ.

Atropa Belladonna, L.

Scrophularineæ.

Verbascum nigrum, L. Linaria spuria, Mill. L. Elatine, Mill. Veronica Buxbaumii, Ten. V. montana, L. Lathræa squamaria, L.

Orobancheæ.

Orobanche major, L. O. elatior, Sutt.

Verbenaceæ.

Verbena officinalis, L.

Labiatæ.

Mentha sylvestris, L. M. piperita, Huds. Calamintha officinalis, Mœnch. Salvia Verbenaca, L. Nepeta Cataria L.

Labiatæ-continued.

Scutellaria minor, L. Lamium Galeobdolon, Crantz

Chenopodiaceæ.

Chenopodium murale, L.

Polygonaceæ.

Polygonum Bistorta, L. P. dumetorum, L. Rumex pulcher, L. R. Hydrolapathum, Huds.

Thymelæaceæ.

Daphne Laureola, L. D. Mezereum, L.

Santalaceæ.

Thesium linophyllum, L.

Euphorbiaceæ.

Euphorbia platyphyllos, L. E. pilosa, L. E. Lathyris, L. Mercurialis annua, L.

Orchideæ.

Neottia Nidus-avis, L. Spiranthes autumnalis, Rich. Epipactis latifolia, Sw. E. palustris, Sw. Cephalanthera pallens, Rich. Orchis latifolia, L.

O. Morio, L.
O. ustulata, L.
O. pyramidalis, L.
Ophrys apifera, Huds.
O. muscifera, Huds.
Herminium Monorchis, Br.

Habenaria conopsea, Benth. H. viridis, Br.

H. bifolia, Br.

H. chlorantha, Bab.

Irideæ.

Iris fœtidissima, L.

Amaryllideæ.

Narcissus Pseudo-narcissus, L.

Dioscoreæ.

Tamus communis, L.

Liliaceæ.

Polygonatum multiflorum, All. P. officinale, All. Convallaria majalis, L. Allium oleraceum, L. Ornithogalum pyrenaicum, L. Fritillaria Meleagris, L. Tulipa sylvestris, L. Gagea lutea, Ker. Colchicum autumnale, L. Paris quadrifolia, L.

Lemnaceæ.

Lemna trisulca, L. L. polyrhiza, L.

Alismaceæ.

Sagittaria sagittifolia, L. Butomus umbellatus, L.

Cyperaceæ.

Scirpus fluitans, L. S. Caricis, Retz. Carex axillaris, Good. C. pendula, Huds. C. digitata, L. C. strigosa, Huds.

C. Pseudo cyperus, L.

Gramineæ.

Calamagrostis epigejos, Roth.
Holcus mollis, L.
Avena pratensis, L.
Koeleria cristata, Pers.
Festuca gigantea, Vill.
F. Myuros, L.
Bromus erectus, Huds.
B. racemosus, L.
B. secalinus, L.
Brachypodium pinnatum,
Beauv.
Lolium perenne, L.
L. temulentum, L.

Filices.

Asplenium Ceterach, L. Cystopteris fragilis, Bernh. Polypodium Robertianum, Hoffm. Ophioglossum vulgatum, L.

Botrychium Lunaria, Sw.

Equisetaceæ.

Equisetum maximum, Lamk. E. sylvaticum, L.

Additions to the Bath Flora since the Publication of Professor Babington's Supplement to the "Flora Bathoniensis."

The following names are indicated by their initials:-

T. B. F .-- Mr. T. B. FLOWER.

C. E. B.-Mr. BROOME.

C. C. B.—Prof. BABINGTON.

Those marked [*] not indigenous, and those marked [†] probably not.

*Camelina sativa -Adonis autumnalis - Waste ground at Weston.

 "Occasionally observed among corn on Rush Hill and Odd Down."—T. B. F. Probably introduced with seed.

Ranunculus aquatilis. Var. In the river and canal. fluviatilis

Barbarea precox -	-	A weed in gardens at South Stoke. Considered by Bentham as only a form of B. vulgaris.
†Erysimum orientale	-	A weed in fields at Limpley Stoke.— Miss Peacock.
*Dianthus cæsius -		Naturalized on old walls at Swainswick.
†Linum angustifolium		Fields near Winsley. Probably introduced with seed.
†Impatiens noli-me-tang	ere	"In woods at Prior Park."—Mr. CLARK. A very doubtful native.
*Trifolium incarnatum		"Naturalized in several places about Bath: an escape from cultivation."— T. B. F.
Vicia bithynica		Slopes of the hills about Pensford.
Fragaria elatior -	-	In a wood by the side of the Gloucester road, about four miles from Bath. Considered by Bentham as only a variety of F. Vesca.
Poterium muricatum	-	"Combe Down."—T. B. F. Only a variety of <i>P. sanguisorba</i> , according to Bentham.
Rosa micrantha	-	Banner Down. Probably only a variety of R. rubiginosa.
R. canina. Var. sarn	ientacea	"Hedges at Combe Hay."—T. B. F.
†Pyrus communis	-	Near the Rocks, Batheaston.—C. E. B.
Epilobium roseum -		Wet places, Combe Down, Batheaston, etc. Not uncommon.
Saxifraga granulata		Stantonbury Camp, north-east side.
Enanthe lachenalii		"Not uncommon in bogs around Bath." T. B. F. Not considered by Bentham as distinct from Œ. pimpinel-loides.
Œ. fluviatilis	-	"In the canal between Bath and Bradford."—T. B. F. Thought by Bentham to be only a variety of E. phellandrium.
*Heracleum giganteum	-	"Naturalized on the banks of the Great Western Railway at Keynsham."— T. B. F.

*Coriandrum sativum	Found by Mr. Broome and myself in a field of mangold near the monument on Lansdown, Sept., 1858. Probably introduced with seed. In Warner's first list of Bath plants Mr. Sole gives this species as growing on "waste places about Dolmead, Bath." It is not mentioned in the "Flora Bathoniensis."
†Asperula arvensis	Fields, Limpley Stoke.—Miss PEACOCK Perhaps introduced with seed.
Valeriana sambucifolia	"Damp places in the neighbourhood of Bath."—T. B. F. Only a variety of V. officinalis, according to Bentham.
*Dipsacus fullonum -	"By the side of the river at Keynsham; not wild."—T. B. F.
Anthemis arvensis -	On walls near Winsley; also near South Wraxall.
Guaphalium sylvaticum -	"Between Box and Marshfield."— T. B. F.
Hieracium murorum. Var. maculatum	In quarries and on walls about Combe Down, as well as in the woods at Prior Park, but not considered by Bentham as distinct from <i>H. sylvaticum</i> .
Utricularia vulgaris	"In the canal between Bathampton and Limpley Stoke."—T. B. F.
*Cuscuta epilinum -	"On flax at South Wraxall and Winsley."—T. B. F.
*C. trifolii -	Clover fields, Batheaston. This and the last species probably introduced with seed.
†Mentha viridis	Sides of a stream in a meadow between South Stoke and Midford.
†Lamium maculatum	On a bank by the side of the footpath leading from South Stoke to Combe Hay. Possibly an outcast from some garden, though not near one.
*Rumex scutatus	"Waste ground by the Saltford Railway Station; naturalized."—T. B. F.

Polygonum dumetorum - "Among bushes near the railway, about

1 organiam tametorum -	one mile from Keynsham, towards Bristol."—T. B. F.
*Euphorbia cyparissias	"Waste ground by the Railway Station, Saltford; possibly planted."—T. B. F.
Callitriche aquatica. Var. platycarpa	"Bogs near South Wraxall."—T. B. F.
Ulmus campestris. Var. sube- rosa	"Copse leading from Odd Down to Combe Hay."—T. B. F.
Salix fragilis. Var. Russelliana	"On the banks of the Avon."—T. B. F.
S. triandra	"Box Brook."—T. B. F.
Lemna trisulca	In the canal near Combe Hay.
L. polyrrhiza -	"Canal basins."-T. B. F.
Potamogeton heterophyllus	"River Avon."-T. B. F.
P. flabellatus, Bab.	"In the canal near Sydney Gardens."— T. B. F.
P. decipiens, Noble.	Found in the canal by Mrs. Hopkins; not previously observed in Britain. Described and figured in "Seeman's Journal of Botany," No. 51, p. 71, Pl. 61.
*Elodea canadensis	In the canal in great plenty; also in the river.
Fritillaria meleagris	This plant, which Mr. Ellacombe informs me, is extinct at Bitton, the station marked for it in the "Flora Bathoniensis" has been re-discovered by Mr. Flower in meadows about Phillip's Norton, though seldom flowering. He says it has been also found near Bradford Wood.
Allium oleraceum -	Borders of fields, South Stoke.
Scirpus fluitans	"Bogs near South Wraxall."—T. B. F.
†Setaria viridis -	"Waste ground near the church, Combe Down; very sparingly."—T. B. F.
Gastridium lendigerum -	"In very small quantity in the quarry above the Observatory field, near

Prior Park."-T. B. F.

*Lolium perenne. Var. Italicum

About Swainswick; escape from cultivation.

†L. temulentum. Var. arvense -

"Cornfields, Monckton Farleigh."-T.B.F. Probably introduced with seed.

Bromus commutatus Bi secalinus -

"Cornfields on Lansdown."-T. B. F. Cornfields, South Stoke. This and the last, and B. arvensis are considered by Bentham as one species.

Aspidium rigidum -

"Ouarries on Hampton Down, very sparingly. I fear the locality has been destroyed by the numerous fern collectors."--T. B. F.

N.B.—This and the following List have been taken verbatim from a lecture on the Bath Flora, delivered to the members of the Bath Natural History and Antiquarian Field Club, by the Rev. Leonard Jenyns, M.A., F.L.S., F.G.S., etc., President of the Club, on Dec. 5th, 1866.

PLANTS EITHER EXTINCT IN THE BATH DISTRICT, OR PERHAPS INSERTED IN THE BATH FLORA BY MISTAKE.

Cardamine bellidifolia

Bab. Fl. Bath., p. 4. Said to have been found formerly by Merrett. No one has found it since.

Dentaria bulbifera -

"In Prior Park, near the Upper Lodge, abundant."-Rev. B. Richardson, Sole MS. Mr. Flower informs me that this plant has not been observed of late years, and that possibly the locality may have been destroyed by the building of the Roman Catholic College.

Arenaria tenuifolia Mænchia erecta

"Probably a mistake." See Bab. Supp., p. 71. Bab. p. 8. Said to have been found by Dr.

Heneage Gibbs. No one else seems to

have met with it.

Erodium moschatum

Bab. Supp., p. 72. Mr. Flower informs me this species rests on the authority of the late Mr. J. Jelly, in his MS. Flora Bathonica. whence it was copied by Prof. Babington. Possibly it may have been confounded with the E. cicutarium.

Vicia	laten

Lathyrus hirsutus.

Bab. Supp., p. 75. Inserted by error in the Flora Bathoniensis, as well as in many of the British Floras, as regards the Pensford locality, the Vicia bithynica having apparently been mistaken for it. The true Lathyrus hirsutus is not known to grow anywhere in this country, except in Essex.

L. latifolius

A mistake. See Bab. Supp., p. 75.

L. palustris

- Bab., p. 14. Said to have been found by Dr. Davies "in moist hedges about Small-combe Wood." Either a mistake, or now lost by drainage.

Cicuta virosa

Bab., p. 21. "A single plant, only observed in the Canal by Dr. Heneage Gibbs. Has long since disappeared."—T. B. F.

Senecio sylvaticas

Bab., p. 21. Said, in the Flora Bathoniensis, to be "frequent on dry banks and pastures," but neither Mr. Broome, nor Mr. Flower, nor myself ever met with it. It grows at Hanham, but must be considered a very doubtful native of the Bath district.

Carduus tenuiflorus.

Bab., p. 27. Said to have been found on the "banks of the canal," by Dr. Davies; but Mr. Flower remarks that Dr. Davies, a few years since, could give him no information about this species, and he considers it as "probably an error."

Gentiana campestris

Bab. Supp., p. 83. Dr. R. C. Alexander, on whose authority this species rests, informs Mr. Flower, the plant in question should be referred to G. amarella. The G. campestris must therefore be erased from the Bath Flora.

Asperugo procumbeus	Bap., p. 33. "The locality for this rare species rests on the authority of Mr. Hill in Blackst. Sp. Bot., p. 5. It is possible he meant <i>Lycopsis arvensis</i> , which was occasionally mistaken for it by the older Botanists."—T. B. F.
Verbascum lychnitis	Bab., p. 33. Found by Dr. Davies many years since, and by no one else. Possibly an escape. Mr. Flower informs me, that "Mr. Haviland had formerly a botanic garden at Batheaston," which may have given origin to it.
Salvia pratensis	Bab. 38. Said in the "Botanist's Guide," to have been found at "Wyck, by Mr. Swayne," but surely a mistake for the S. verbenacea.
Ophrys aranifera -	Bab. Supp., p. 94. No one appears to have found this species except the late Mr. Jelly. If not a mistake, probably extinct.
Narcissus biflorus -	A mistake. See Bab. Supp., p. 95.
Carex davalliana	Bab., p. 54. Not found for many years. Bentham considers it as only a variety of <i>C. dioica</i> .
Briza minor	Bab., p. 59. An error: a variety of the B. media having been mistaken for it.—C. C. B.
Poa bulbosa	Bab., p. 59. On the authority of Mr. Dyer, in the "Botanist's Guide." Supposed to be an error, some other species having been mistaken for it.
Equisetum hyemale	"Not found for many years." Bab. Supp., p. 103. Probably extinct.
Polypodium dryopteris -	"Not now to be found" where Mr. Sole met with it; and Prof. Babington thinks that perhaps the <i>P. calcareum</i> had been mistaken for it. See Supp., p. 103.
If the above plants	be withdrawn from the Bath List, it will
reduce the	entire number of species to 747.

The Fungi of Bath have been enumerated and described by the late C. E. Browne, F.L.S., in Wright's "Historic Guide," p. 407.

ZOOLOGY.

C. TERRY, M.R.C.S.

THE following lists illustrative of the Zoology of the district are restricted to such of the Aves and Insecta as are accounted rare, or comparatively rare. An extended catalogue more thoroughly representative of the fauna of the neighbourhood will be found in "Wright's Historic Guide, p. 415," where the months in which the perfect insects (Lepidoptera) make their appearance are also given.

All the species indicated have been collected within a radius of about six miles, but this area "consisting of open down, old quarry grounds, hill sidesdotted with plantations and underwood, and luxuriant well timbered valley, watered by innumerable streams, and intersected for nearly its whole ·length by the river Avon" is so exceedingly rich as to well repay the naturalist who may select it for his hunting ground.

AVES..

Falco Peregrinus. - Peregrine Falcon, shot at Bathampton, 1838; Monkton Combe, 1840; Bathwick Hill, 1856.

Falco Subbuteo.—Hobby. Falco Æsalon.—Merlin. Astur Palumbarius.— Goshawk, shot at Claverton, 1833.

Buteo Lagopus.—Rough-legged Buzzard, shot at Swainswick, 1837. Pernis Aprivorus.—Honey Buzzard, shot at Batheaston and Swainswick. Milvus Regulus.—The Kite, shot at Claverton, 1858; Batheaston, 1859. Circus Cyaneus.—Hen Harrier, shot at Bannerdown, 1842.

Circus Rufus.—Marsh Harrier, shot in 1833. Scotophilus Passerina.—Little Owl, shot at Batheaston in 1834. Scops Aldrovand.—Scops-eared Owl, shot at Claverton in 1838. Lanius Excubitor.—Great Shrike, 2 shot at Claverton in 1840.

Regulus Ignicapillus.—Fire Crest.
Bombycilla Garrula.—Waxwing, shot at Charlcombe in 1832.

Fregilus Graculus.—Chough, caught at Bathwick in 1831. Corythus Enucleator .- Pine Grosbeak, caught at Widcombe and Foxhill. Loxia Curvirostra.—Crossbill; many obtained in 1837-8-9.

Upupa Epops.—Hoopoe, shot at Weston in 1850.

Merops Apiaster.—Common Bee Eater, shot in Villa Fields in 1842; seen at Widcombe in 1840.

Egretta Garzetta.—Little Egrel, shot at Bathampton in 1841.

Butor Stellaris.—Bittern, shot at Bathampton, 1826; at Lansdown, 1857.

Ardeola Minuta.—Little Bittern; two shot at Radstock, 1852. Crex Pasilla.—Little Crake, shot at Grosvenor Pond.

Mergulus Alle.—Little Auk; one obtained at Pickwick Mills, 1836.

INSECTA.

LEPIDOPTERA. —Butterflies.

PAPILIO.

Papilio Machaon Colias Hyall

MANCIPIUM.

Mancipium Duplidice Leucophasia Sinapis Nemeobius Lucina

MELITÆA.

Melitæa Cinxia

VANESSA.

Vanessa Antiopa

HIPPARCHIA.

Hipparchia Semele Thecla Rubi Thecla W. album

POLYOMMATUS.

Polyommatus Acis Polyommatus Arion

HESPERIA.

Hesperia Paniscus

LEPIDOPTERA. - Moths.

SPHINGIDÆ.

Smerinthus Tiliæ Acherontia Atropos Sphinx Convolvuli Choerocampa Porcellus

Sesiidæ.

Sesia Fusiformis Sesia Bombyliformis

TROCHILIIDÆ.

Sphecia Apifornis Trochilium Miopæforme

HEPIALIDÆ.

Hepialus Hectus Zeuzera Œsculi

NOTODONTIDÆ.

Clostera Curtula Notodonta Ziczac

BOMBYCIDÆ.

Lasiocampa Rubi

BOMBYCIDÆ—continued.

Lasiocampa Trifolii Trichiura Cratægi Gastropacha Quercifolia

ARCTIIDÆ.

Demas Coryli Orgyia Gonostigma Hypercampa Dominula Diacrisia Russula Arctia Villica

LITHOSIIDÆ.

Lithosia Aureola Lithosia Lurideola

NOCTUIDÆ.

Triphæna Interjecta Triphæna Fimbria Triphæna Fanthina Lytea Umbrosa Charæas Æthiops Agrotis Corticea

NOCTUIDÆ-continued.

Aprotis Valligera Spelotis Augur Orthosia Gracilis Anchocelis Litura Anchocelis Pistacina Eupsilia Satellitia Calocampa Exoleta Xvlophasia Characterea Hama Aliena Mamestra Oleracea Dianthecia Cucubali Eurois Herbida Miselia Oxvacanthi Thyatira Butis Apetela Leporina Eugramma Oo Mythimna Turca Mythimna Grisea Meristus Quercus Monagria Pygnina Cucuillia Scrophulariæ Plusia Orichalcea Heliothis Marginata Heliothis Dispacea Acontia Luctuosa

GEOMETRIDÆ.

Odoptera Angularia Odoptera Lunaria Odoptera Illustraria Odoptera Illunaria Pericallia Syringaria Iodis Vernaria Alcis Rohoraria Hemerophila Abruptaria Boarmia Crepuscularia Boarmia Laricaria Plagodis Dolobraria Coremia Montanata Coremia Olivata Electra Achatenata Eupithecia Coranata Eupithecia Subumbrata Melanippe Hastata Emmelesia Hydrata Odezia Chærophillata Ptychopoda Scutulata

GEOMETRIDÆ-continued.

Timandra Exemptaria Ennomos Flexula

PLATYPTERICIDÆ.

Drepana Unguicula

Pyralidæ.

Paracolax Nemoralis Aglossa Cupreolatus Hypsopygia Costalis Agrotera Flammealis Diasemia Literalis Epicorsia Cinctalis Evergestis Margaritalis Simaethis Pariana Simaethis Lutosa

TORTRICIDÆ.

Hylophila Quercana Earis Chlorana Tortrix Galiana Lozotænia Fosterana Lozotænia Transitana Lozotænia Corvlana Peronea Centrovittana Peronea Auctumnana Peronea Schalleriana Cheimatophila Mixtana Teras Excavata Dicty opteryx Forskaliana Phycholoma Lecheana Lithographia Campoliliana Anchylopera Subuncana Ditula Rotundana Carpocapsa Pomenella Dicrorampha Seguana Hemerosia Rheediella Grapholitha Cana Eupæcilia Angustana Lozopera Straminea

CRAMBIDÆ.

Harpipteryx Dentella Anacampsis Aleela Adela Fasciella Cerostoma Xylostella

ALUCITIDÆ.

Pterophorus Punctidactylus

AFTERWORD BY THE EDITOR.

It has not been compatible with the design of this Handbook to supply the place of a Directory or to trespass on the domain of the many excellent Guide-books which direct the steps of the stranger to those objects of interest which are more or less common to all large cities. A list of Churches and Chapels, of Hospitals and Charitable Institutions, of Clubs and Societies, would have seriously contracted the space already too scanty for the subjects chosen. In confining the scope of the Handbook to the distinctive features and peculiar history of the city, there has been an inevitable omission of many things deserving of mention, for some of which an afterword seems to be demanded.

The visitor to Bath is generally impressed with the remarkable blending of town and country which is characteristic of its situation and development. It is not so much the rus in urbe as the urbs in rure which gives a character of cheerfulness and a sense of pervading beauty to the place. There is scarcely a street from which views of the surrounding hills or glimpses of charming landscape are not to be obtained, and the city itself—seen from any of the heights around, or even from its own terraces and crescents—apart from its general picturesqueness, arrests attention by the prevailing hue of warm grey which the universal employment of the native freestone imparts to the scene. To those who have an eye for repose and gradation of tone, the view of Bath by morning or evening light from any slight elevation is one not easily effaced from the memory.

In the streets themselves this pleasing effect is often lost, and the fresh ochre of the unblemished stone is replaced by an occasional sombreness, deepening, in rainy weather, into possible gloom; but this defect is only partial, and the prevailing oolitic grey soon re-asserts itself and is not less grateful to the eye than are the comfort of the well paved streets, the variety of excellent shops, and the symmetry of the stately succession of handsome residences, striking and attractive.

Surrounded as Bath is by wooded hills, it is scarcely necessary to indicate those "coigns of vantage" from which the finest views may be obtained, but the abrupt precipitousness of Beechen Cliff, overhanging the city on its southern side and easily ascended from the Old Bridge, has long secured for its bird's eye view the palm of priority. "What Mount Olivet is to Jerusalem, and what Jotham's Crag is to Shechem, such is Beechen Cliff to the city of Bath. From this point every cranny and crumple of the site seems to open and unfold itself to the view, and the many-aspected city lies collected to a focus in one undulating plain."* The cliff itself is a remarkable feature in the landscape, and, swelling gently with grassy slope from the further side, with rolling woodland descending from its crest, it has been compared to a breaking sea-wave, and seen from many points the comparison is just and striking.

"Soracte's height"—" from out the plain
Heaves like a long-swept wave about to break
And on the curl hangs pausing."
—Childe Harold.

Of other favourite view-points—those of Prior Park and Pope's Walk, Hampton Cliffs, Beckford's Tower and Prospect Point on Lansdown, may be mentioned as a hint to the pedestrian, but every excursion has its charm, and from each surrounding height the eye naturally turns to

"Where the glad city lies in distance doubly rare."

But it is not necessary to quit the pavement to enjoy fine scenery. Varied and delightful prospects are to be obtained from spots as easily accessible as Camden Crescent or Widcombe Hill, the North Parade and Cleveland Bridges, the Cleveland Walk on Bathwick Hill, and Widcombe Old Church and Church-

^{*} Earle's " Bath Anct. and Mod.," p. 286.

yard—"one of the gems of Bath." This venerable Church is indeed a most picturesque object; its ivy-clad tower rising in happy juxtaposition to the stately mansion, Widcombe House, which is second only to Prior Park in architectural dignity and beauty of natural situation. Said to have been built by Inigo Jones, (though this is more than doubtful,) in nobility of design, in choice of site, and admirable "setting," it is every way worthy of his genius. We can scarcely wonder that the cultivated taste of Walter Savage Landor should have delighted in the scenery of this secluded and romantic spot, or that he should have selected its quiet churchyard for his final resting-place. Here too did Fielding, after the death of his wife, when "he came out to dissipate" his grief, find a congenial retreat.* Old memories cluster thick around the God's Acre of the Parishchurch of Widcombe.

Of the objects in a strange city which are secure of observation, bridges are perhaps among the most prominent, but there are two bridges in Bath which often escape recognition or notice. One of these is the Palladian Bridge in the pleasure grounds of Prior Park, a classical structure admirably fulfilling its purpose—to supply a central feature in an exquisite landscape; the other, the Pulteney Bridge, which admits us to the parish of Bathwick, but which from being built upon on either side disguises its pontine character so effectually that the stranger is unconscious of the river which flows beneath his feet. In this respect it recalls the memories of Old London Bridge, and suggests another resemblance between the cities of the Avon and the Arno.

Crossing this bridge and passing down Great Pulteney Street the Sydney Gardens are worthy of a visit and—a note. Once the Vauxhall of Bath, these gardens are still a delightful resort, and though the sylvan seclusion is marred by the intersection of the G. W. Railway, even this inevitable concession to the necessities of the age has been turned to account, and the terraces which

^{*} See "Historic Houses," Int. p. xiii.

overlook the great artery of daily traffic are pleasing and popular promenades, especially on the occasions of the Floral Fêtes and Horticultural Exhibitions now justly famous.

Close to the Pulteney Bridge may still be seen a portion of the ancient Borough Wall. When Samuel Pepys visited Bath in 1668 he tells us that he walked "round the walls of the city, which are good and the battlements all whole." Now, though the name of "Borough Walls" still designates a busy thoroughfare, the Walls themselves are only extant in two places, one facing the Mineral Water Hospital* and the other in a depressed and depressing situation at the back of the Market. Here too is the sole surviving gate, the East gate, a forlorn and half-forgotten relic of the little city in the bend of the Avon, the outline of whose ancient limits is now preserved only in the names of its streets and thoroughfares.

Hard by the East gate and adjoining the Guildhall are the Markets. There was a time, not so long ago, when Bath in common with other provincial towns held its Fairs and Markets sub Jove, but its Cherry Fair and Orange Fair are things of the past, and a well-housed and admirably appointed Market is now the legitimate successor of the somewhat al fresco arrangements which sufficed our fathers.

The Market is not only convenient and central, and well provided with all the necessities of a daily food-supply, but is rendered exceptionally attractive by the rich array of flowers and fruits collected under its central dome. At all seasons of the year the emulation of rival vendors secures a display not more remarkable for its profusion than for its tasteful arrangement. The law of supply and demand admits of few more pleasing illustrations than this daily exhibition of the way in which the prevailing taste for floral decoration has established a new and beautiful attraction in the midst of a building primarily devoted to the utilities and the necessities.

^{* &}quot;The battlement is modern, and was placed there by the public spirit of the late J. H. Markland, D.C.L."—Earle's "Bath Anct. and Mod.," p. 100.

An interesting specimen of the domestic architecture of the Elizabethan period, near to where once stood the West gate, is Hetling House, occupied, if not built, by Sir W. Hungerford of Farleigh as a "town house, overlooking the western borough walls." It only needs the removal of some mean and miserable buildings which have been allowed to encroach upon its precincts to worthily remind us of the history it represents. Its vicissi-In the 16th tudes of occupation have been many and strange. century it was a noble mansion with subterranean passages eading to the gardens and pleasure grounds without the walls. In the 17th it was garrisoned by the soldiers of the King, and its spacious upper chamber converted into a barrack. been the temporary dwelling place of Princesses of the Blood, the Hall of the Odd Fellows, the office of the Bath and West of England Agricultural Society, and is now the Church House of the Abbey parish. The noble fireplace and old oak staircase, which still recall the memory of departed grandeur, are now it may be hoped in safe keeping.



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ΑΡΙΣΤΟΝ ΜΈΝ ΎΔΩΡ.

HOT MINERAL SPRINGS OF BATH.

The BATHS were



OUNDED by the Romans in the first century, and, uninterruptedly continued on one site to the present time, through successive changes of peoples, opinions, fashion, neglect, reduction, and enlargement.

The Establishments of the Baths are unrivalled for scientific appliances of water and vapour as well as for luxurious appointment.

The Mineral water is most liberally given in large Reclining Baths, which are more ample than it is believed can be found elsewhere, whilst what are called "deep" Baths are a speciality, each containing more than 800 gallons of water.

The Aix les Bains douches are each provided with a powerful pressure and volume of water from two douche pipes which are readily regulated as to temperature, and provided with thermometers and pressure guages. There is also an additional douche (a feather douche) of the most delicate construction, and a graduated shower. There are various Sitz Baths, Sprays, Lave, Needle Baths, and internal injections of every authorised variety:—Hot-plates and douche for Lumbago and other complaints:—Dry and moist heated rooms with atomised spray. Vapour as given off from the Spring is applied locally to the arms, legs, etc., or to the whole body, combined with atomised water or without, as also with a graduated shower. Artificial preparations, or natural mineral foreign waters, may be combined with the Hot Mineral water or vapour.

An Inhalation Room is fitted with Mineral Water, in which vapour is produced by a spray, with the addition of direct vapour; either of these methods of vapour may be applied singly or combined or medicated. A Humage Room adjoins, where every known method is adopted for douching the nose, eye, ear, or throat with or without steam, with every combination of natural Mineral water or medical agents that may be prescribed. There are three large Swimming Baths of Tepid water, with separate dressing-rooms attached. The King's Bath is a large open bath into which the Mineral water flows direct from the Spring, and is utilised at varying and graduated degrees of temperature; this bath although of considerable size is not a swimming bath.

Attached to all the various Establishments are Cooling-

rooms, with a Smoking-room to the New Baths only.

In the Pump Room a fountain continuously flows with Hot Mineral Water for Drinkers. The various systems of Massage are administered in the Baths, as also "packing"

the patient, with dry rubbing, if required.

A Tariff of fees for the Baths is placed in the Ticket-office; a small fee is paid, in addition to the charge for a bath, for attendance; this latter is an honorarium paid the servants in addition to the weekly wages they receive from the Corporation.

The waters are most valuable in all cases of Rheumatism and Gout; Psoriasis, Eczema, and many other skin affections. The numerous testimonials afford sufficient evidence of the therapeutic value of the water.

Readers are referred to the published testimonials and to

the many medical works on the Bath Mineral Water.

The Bathing Establishments are the King's and Queen's Bath, the Royal Baths, the Cross Bath, and the New Baths

adjoining the Grand Pump Room Hotel.

All the Establishments are the property of the Corporation of the City of Bath, and are under the control of the Hot Mineral Baths Committee. The Manager, Mr. Johnston, will afford every information to those who may require it.

Number of Bathers in the year ending March, 1888,

86,551; receipts, £5,707.

